DEPARTMENT OF THE NAVY



OFFICE OF NAVAL RESEARCH 875 NORTH RANDOLPH STREET SUITE 1425 ARLINGTON, VA 22203-1995

IN REPLY REFER TO:

5720 Ser BD042/037 ONR FOIA 16-002 February 1, 2016

Mr. Daniel Ernsberger Behrend and Ernsberger, PC 12th Floor, Park Building 355 Fifth Avenue Pittsburgh, PA 15222

Dear Mr. Ernsberger:

This is the final response to your Freedom of Information Act (FOIA) request received by the Office of Naval Research (ONR) on September 25, 2015. You made a series of requests related to a technology called "Adaptive Cross Approximation" and individuals, universities and companies who may have contracts utilizing it. On January 19, you adjusted your request to the contracts we found mentioning two of the individuals named in your first request. A copy of that request and the subsequent email are included with this letter.

Parts of the records you requested have been redacted under 5 U.S.C. § 552 (b)(4) and 5 U.S.C. § 552 (b)(6), better known as Exemptions 4 and 6. We consider individual unit prices to be confidential commercial information exempt from disclosure under Exemption 4. We also redacted signatures, which are personal information exempt from disclosure under Exemption 6. Since you indicated you are willing to accept clearly releasable information, we do not consider these redactions to be a denial, or partial denial, of your request.

The redacted documents are attached. We have classified you as a "commercial use" requester. As such, we may charge you for all search, review, and duplication costs for processing this request. Accordingly, we are charging you \$59.00 for 100 pages of partially redacted documents and one (1) hour of professional review time. Please forward a check or a money order for \$59.00 within 30 days from the date of this letter payable to the Treasury of the United States. You should mail your check to:

Office of Naval Research Code BD042, Room 620 One Liberty Center 875 North Randolph Street Arlington VA 22203-1995

To ensure that your account is credited, you must reference ONR FOIA request 16-002 on your check or money order and attach it to a copy of this letter. If we do not receive your payment within 30 days, ONR may institute a collection action under Federal debt collection statutes. These statutes provide for recovery of interest and administrative costs and penalty charges for handling a delinquent debt owed to the government.

If you have any questions, please contact Mr. Jason Towns at (703) 696-5361 or $\underline{\text{ONRFOIA@navy.mil}}$. Please reference ONR FOIA 16-002 in your correspondence regarding this case.

Sincerely,

Kathy Thompson FOIA Officer

Attachments: As stated

RECORD OF FREEDOM OF INFORMAT	rion (FOI) PROCESSII	NG CC	TSC		ORT CONT SYMBOL	ROL
Please read instructions on back	before:	completing form.				DA&M(A	A)1365
1. REQUEST NUMBER 2. TYPE OF REQUEST (X one)	3. D	ATE COMPLETED (Y	YYYMN	4DD) 4. ACTION O	FFICE		
16-002 X a. INITIAL b. APPEAL		20160129			ONR		
5. CLERICAL HOURS (E-9/GS-8 and below)	FEE CODE	(1) TOTAL HOURS		(2) HOURLY RATE		(3) C(OST
a. SEARCH	1		ĺ			· · · · · ·	0.00
b. REVIEW/EXCISING	2		х	\$20.00	= -	***	0.00
c. OTHER ADMINISTRATIVE COSTS	3				ı [0.00
6. PROFESSIONAL HOURS (O-1 - O-6/GS-9-GS-15)/CONTRAC	CTOR	(1) TOTAL HOURS		(2) HOURLY RATE		(3) C	OST
a. SEARCH	1		ĺ				0.00
b. REVIEW/EXCISING	2	1.00	×	\$44.00	= -		44.00
c. OTHER/COORDINATION/DENIAL	3		ĺ		, [0.00
7. EXECUTIVE HOURS (O-7 - ES 1 and above)		(1) TOTAL HOURS		(2) HOURLY RATE		(3) CC	OST
a. SEARCH	1					-	0.00
b. REVIEW/EXCISING	2		x	\$75.00	=		0.00
c. OTHER/COORDINATION/DENIAL	3		ļ		,	···· · · · · · · · · · · · · · · · · ·	0.00
8. COMPUTER SEARCH		(1) TOTAL TIME		(2) RATE		(3) CC	OST
a. MACHINE TIME (Not PC, desktop, laptop)	4		F		. [0.00
b. PROGRAMMER/OPERATOR TIME (Human)							
(1) Clerical Hours	1		х	\$20.00/hr	- F	<u> Administración</u>	0.00
(2) Professional Hours	1		<u> </u>	\$44.00/hr	, [, , , , , , , , , , , , , , , , , , , 	0.00
9. OFFICE MACHINE COPY REPRODUCTION	·	(1) NUMBER	<u> </u>	(2) RATE		(3) CC	OST
a. PAGES REPRODUCED FOR FILE COPY	3		J	.15	, [0.00
b. PAGES RELEASED	5	100	X	.15	= -		15.00
10. PRE-PRINTED PUBLICATIONS		(1) TOTAL PAGES	Í	(2) RATE	<u> </u>	(3) CC	ost
a. PAGES PRINTED	5		x	.02	= [0.00
11. COMPUTER PRODUCT OUTPUT/ACTUAL COST CHARGES	·	(1) NUMBER		(2) ACTUAL COST		(3) CC	OST
a. TAPE/DISC/CD	6		x				0.00
b. PAPER PRINTOUT	3						0.00
12. OTHER ADMINISTRATIVE FEES		(1) NUMBER		(2) ACTUAL COST		(3) CC	ost .
a. ALL POSTAGE/ADMINISTRATIVE (See instructions)	3		х		-		0.00
13. AUDIOVISUAL MATERIALS		(1) NUMBER		(2) ACTUAL COST		(3) CC	OST
a. MATERIALS REPRODUCED	4		х		=		0.00
14. SPECIAL SERVICES		(1) NUMBER		(2) ACTUAL COST	-	(3) CC	OST
a. ALL SPECIAL SERVICES (See instructions)	6		Х		=		0.00
15. MICROFICHE REPRODUCED	5		х	.25	=		0.00
FEE CODES		16. FOR FOI OFFI	CE USE	ONLY			
1 Chargeable to "commercial" requesters. Chargeable to "of requesters after deducting 2 hours.	ther"	a. TOTAL COL	LLECTA	BLE FEES			
Chargeable to "commercial" requesters only.	,	b. TOTAL PRO	OCESSI	NG FEES	,		\$59.00
3 Not chargeable to any fee category.	,	c. TOTAL CHA	ARGED	Ť			
4 Chargeable to "commercial". Chargeable to "other" after deduction of the equivalent of 2 hours. (Example: deduct	ļ			DUCED (X one)	T _Y	es	No
\$88.00 professional rate.)				}		es	-
5 Chargeable to all fee categories after deduction of 100 pag (DOES NOT include "commercial").	jes	e. FEES NOT /	APPLICA	ABLE (X one)		35	No
6 Chargeable to all fee categories. No deductions.		See Chapter 6, Fee		dule, DoD 5400.7-R,	to deterr	nine appr	opriate

INSTRUCTIONS FOR COMPLETING DD FORM 2086

This form is used to record costs associated with the processing of a Freedom of Information request.

- 1. REQUEST NUMBER First two digits will express Calendar Year followed by dash (-) and Component's request number, i.e., 03-001.
- 2. TYPE OF REQUEST Mark the appropriate block to indicate initial request or appeal of a denial.
- 3. DATE COMPLETED Enter year, month and day, i.e., 20031001.
- 4. ACTION OFFICE Enter the office processing this request.
- 5. CLERICAL HOURS For each applicable activity category, enter time expended to the nearest 15 minutes in the total hours column. The activity categories are:

Search - Time spent in locating from the files the requested information.

Review/Excising - Time spent in reviewing the document content and determining if the entire document must retain its classification or segments could be excised thereby permitting the remainder of the document to be declassified. In reviews for other than classification, FOI exemptions 2 through 9 should be considered.

Other Administrative - Time spent in activity other than above, such as hand carrying documents to other locations, restoring files, etc.

- Multiply the time in the total hours column of each category by the hourly rate and enter the cost figures for each category.
- PROFESSIONAL HOURS For each applicable activity category, enter time expended to the nearest 15 minutes in the total hours column. The activity categories are:

Search/Review/Excising/Other - See explanation above.

- Multiply the time in the total hours column of each category by the hourly rate and enter the cost figures for each category.
- 7. EXECUTIVE HOURS For each applicable activity category, enter the time expended to the nearest 15 minutes in the total hours column. The activity categories are:

Search/Review/Excising/Other - See explanation above.

 Multiply the time in the total hours column of each category by the hourly rate and enter the cost figures for each category.

- 8. COMPUTER SEARCH When the amount of government-owned (not leased) computer processing machine time required to complete a search is known, and accurate cost information for operation is available, enter the time used and the rate. Then, calculate the total cost which is fully chargeable to the requester.
- Programmer and operator costs are calculated using the same method as in items 5 and 6. This cost is also fully chargeable to requesters as computer search time.
- 9. OFFICE COPY REPRODUCTION Enter the number of pages reproduced and/or released.
 - Multiply by the rate per copy and enter cost figures.
- 10. PRE-PRINTED PUBLICATIONS Enter total pages.
- Multiply the total number of pages by the rate per page and enter cost figures.
- 11. COMPUTER COPY Enter the total number of tapes and/or printouts.
- Multiply by the actual cost per tape or printout and enter cost figures.
- 12. OTHER ADMINISTRATIVE FEES Covers postage (when known), correspondence preparation, other non-billable charges not covered under items 5 7, etc.
- 13. AUDIOVISUAL MATERIALS Duplication cost is the actual cost of reproducing the material, including the wages of the person doing the work.
- 14. SPECIAL SERVICES Covers items outside of the FO!A such as authenticating records at \$5.20 per seal, overnight mail at cost, and other services for which the requester agrees to reimburse the agency.
- 15. MICROFICHE REPRODUCED Enter the number of copies and multiply by the rate per copy.

16. FOR FOI OFFICE USE ONLY -

Total Collectable Fees - Add the blocks in the cost column and enter total in the total collectable fees block. Apply the appropriate waiver for the category of requester prior to inserting the final figure. Further discussion of chargeable fees is contained in Chapter VI of DoD Regulation 5400.7-R.

Total Processing Fees - Add all blocks in the cost column and enter total in the total processing fees block. The total processing fees in most cases will exceed the total collectable fees.

Total Charged - Enter the total amount that the requester was charged, taking into account the fee waiver threshold and fee waiver policy.

Fees Waived/Reduced - Indicate if the cost of processing the request was waived or reduced by placing an "X" in the "Yes" block or the "No" block.

Fees Not Applicable - Indicate if the cost of processing the request was not applicable by placing an "X" in the "Yes" block or the "No" block.

Dear Mr. Towns:

Towns, Jason C CT	R ONRA, BD04C
From: Sent: To: Subject:	behrendlawyers@aol.com Tuesday, January 19, 2016 11:02 Towns, Jason C CTR ONRA, BD04C Re: [Non-DoD Source] Re: ONR FOIA 16-002
Dear Mr Towns	
Thank you for calling me items. Please send me	e on January 15th (which I returned on the 19th). I understand that you have found several what you have found.
Sincerely Daniel Ernsberger	
To: behrendlawyers <be Sent: Mon, Jan 11, 2016</be 	FR ONRA, BD04C, BD04C <jason.towns.ctr@navy.mil> hrendlawyers@aol.com></jason.towns.ctr@navy.mil>
Mr. Ernsberger:	
	bout half finished. Your request is being researched thoroughly, and that takes time when there avolved. We will try to provide you with an answer as soon as we can.
V/r,	
Jason	
Original Message From: behrendlawyers@ Sent: Monday, January 1 To: Towns, Jason C CTR (Subject: [Non-DoD Source	Paol.com [mailto:behrendlawyers@aol.com <mailto:behrendlawyers@aol.com?>] .1, 2016 10:07 AM DNRA, BD04C</mailto:behrendlawyers@aol.com?>
January 11, 2016	

This concerns ONR FOIA 16-002. I understand that we have made a lengthy request with multiple questions. Can you give us a partial response as the results come in.

Please tell me whether there is a means for following the progress of our FOIA request on line. If so where do I find the online information and what do I have to do to access the online information.

Sincerely

Daniel W. Ernsberger

----Original Message----

From: Towns, Jason C CTR ONRA, BD04C, BD04C < jason.towns.ctr@navy.mil>

To: behrendlawyers <behrendlawyers@aol.com>

Cc: Harrid, April D CTR ONR, BD04, BD04 <april.harrid.ctr@navy.mil>

Sent: Tue, Dec 8, 2015 9:03 am

Subject: RE: [Non-DoD Source] ONR FOIA 16-002

Mr. Ernsberger:

Due to the number of questions in your letter, it took longer than expected to run a search for relevant documents. We expect to have an answer to you soon.

V/r,

Jason

----Original Message----

From: behrendlawyers@aol.com [mailto:behrendlawyers@aol.com <mailto:behrendlawyers@aol.com?> <mailto:behrendlawyers@aol.com <mailto:behrendlawyers@aol.com?> ?> }

Sent: Tuesday, December 08, 2015 9:02 AM

To: Towns, Jason C CTR ONRA, BD04C

Subject: [Non-DoD Source] ONR FOIA 16-002

Jason C. Towns
Sr. FOIA Analyst
Contractor Support to ONR Code BD042
Data Federal Corporation
Office of Naval Research
875 N. Randolph St.
Arlington, VA 22203
703-696-5361
jason.towns.ctr@navy.mil

Dear Mr. Towns:

I understand that it will be at least 15 days to complete this process. Probably longer. Please tell me how it is going.

Sincerely Daniel Ernsberger

BEHREND & ERNSBERGER, P.C. ATTORNEYS AT LAW

PARK BUILDING - 12th FLOOR 355 FIFTH AVENUE PITTSBURGH, PA 15222

BARBARA BEHREND ERNSBERGER DANIEL W. ERNSBERGER KENNETH R. BEHREND KEVIN M. MILLER RICHARD T. ERNSBERGER

VOICE (412) 391-2515 FAX (412) 391-2762 KENNETH W. BEHREND (1924 - 2009)

DANIEL W. CANNON (1920 - 1998)

October 15, 2015

Jason C. Towns
Sr. FOIA Analyst
Contractor Support to ONR Code BD042
Data Federal Corporation
Office of Naval Research
875 N. Randolph Street
Arlington, VA 22203

RE: Freedom of Information Act Request

Dear Mr. Towns:

Thank you for your e-mail of October 5, 2015. You have asked for the following:

- 1) A statement that we are making an FOIA request
- 2) A reasonable description of the records we are requesting
- 3) A statement that we agre to pay fees associated wit the release of materials.
- 4) My name, complete mailing address and phone number.

Please accept this response to your email as a FOIA request. A reasonable description of the records requested follows. We agree to pay reasonable fees. My name and address is Daniel W. Ernsberger, 1200 Park Building, 355 Fifth Avenue, Pittsburgh Pa 15222. My phone number is 412 391 2515.

The reasonable description of the documents requested is:

- 1. All requests for bids, and contract documents, that resulted in Dr Francis Canning receiving any government contracts. This includes but is not limited to:
 - a. Contract N000014-99-C-0005,
 - b. Contract DAS60-00-M-0077,
 - c. Contract N00014-04-C-0074
- 2. All job offers, and contract documents, that resulted in Dr Francis Canning receiving any government employment. This includes but is not limited to:
 - a. Dr. Francis X. Canning was employed by the Naval Weapons Center at China Lake from July 12, 1982 until August 1987 (approximately August 10).
 - b. He has been employed by the Naval Air Warfare Center, Weapons Division, at China

- Tools and Environments (CREATE) Project. John D'Angelo john.dangelo@us.af.mil of the Air Force Research Laboratory is point of contact
- d. Other contracts known to John D'Angelo that make use of "Adaptive Cross Approximation" methods.
- 8. All requests for bids, and other contract documents, that resulted in Yale U receiving a contract that makes use of "Adaptive Cross Approximation" methods
 - a. Vladimir Rokhlin
 - b. Other investigators at Yale University
- 9. All requests for bids, and other contract documents, that resulted in HRL Laboratories (formerly Hughes Research Labs in Malibu) receiving a contract that makes use of "Adaptive Cross Approximation" methods
- 10. All requests for bids that resulted in University of Illinois receiving a contract that makes use of "Adaptive Cross Approximation" methods
- 11. All requests for bids, and other contract documents, that resulted in Bowing receiving a contract that makes use of "Adaptive Cross Approximation" methods

If you call me at (412) 391 2515, we may be able to streamline this document request. Our goal is to find the government use of the patented "Adaptive Cross Approximation" methods. If you know what I am talking about then this is a relatively straight forward request. If you are not familiar with "Adaptive Cross Approximation" methods then you will have to give us all the contract documents requested and let us decide whether the contracts are related to the patented "Adaptive Cross Approximation" methods. Therefor, I need to know your level of understanding of "Adaptive Cross Approximation" methods before I can simplify my request.

Additionally we may be able to streamline the document request to documents that do not require redaction. Our goal is to find the government use of the patented "Adaptive Cross Approximation" methods. If the "Request for Bid" clearly identifies the subject matter of the contract we may be able to limit our request to the "request for bid" and delete the phrase "and other contract documents" from the above request for documents and thereby limit the request to documents that do not require redaction.

Please call me at (412) 391 2515.

Sincerely,

BEHREND & EKNSBERGER, P.C.

BEHREND & ERNSBERGER, P.C.

355 Fifth Avenue

Park Building, 12th Floor Pittsburgh, PA 15222

(412) 391-2515 - Telephone

(412) 391-2762 - Facsimile behrendlawyers@aol.com

AMENDMENT OF SOLI	CITATION/MODIFICATION	OF CONTRACT	CONTRACT ID CO D0-C9(U)	DDE "	PAGE OF PAGES
2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PU		5. PROJECT	NO. (if applicable)
P00001	SEE BLOCK 16C	04PR03521-01		N.A.	
6. ISSUED BY CODE	N00014	7. ADMINISTERED I	3Y (if other than item 6,	SCD-C	CODE S3911A
OFFICE OF NAVAL RESEARCH ONR 254 Brian K. Murphy (703)696-00 E-mail brian_murphy@onr.navy.mil BALLSTON CENTRE TOWER ONE 800 NORTH QUINCY STREET ARLINGTON, VA 22217-5660	30	DCM Pittsburg Moorhead Feder 1000 Liberty Av Pittsburg, PA 15		·····	
8. NAME AND ADDRESS OF CONTRA	CTOR (No., street, county, Stat	e and ZIP Code)	(/) 9.A. AMEN	DMENT OF SOL	ICITATION NO.
SIMPLY SPARSE TECHNOLO	OGIES 🗼	3 5	N.A.) (SEE ITEM 11)	·· ···································
59 DELROSE DRIVE	•		<u> </u>		ONTRACT/ORDER
MORGANTOWN, WV 26508-	0948	PARAL	10A. MOD NO. N00014-04		CNTRACTIORDER
			10B. DATE	D (SEE ITEM 13	3)
CODE FACILIT	Y CODE		19 MAR 20	104	
19119	11. THIS ITEM ONLY APPL	IES TO AMENDMENTS O			
	II. INISTIEM DILT AFFE	IES TO MEMBERS	F SOCIONATIONS		
The above numbered solicitation is Offers must acknowledge receipt of this completing items 8 and 15, and returnin (c) By separate letter or telegram which RECEIVED AT THE PLACE DESIGNATION OF YOUR OFFER. If by virtue of this as	amendment prior to the hour an g copies of the amendment; includes a reference to the solic FED FOR THE RECEIPT OF OF	nd data specified in the sollo (b) By acknowledging rece citation and amendment nu- FERS PRIOR TO THE HO	citation or as amended, sipt of the amendment of mbers. FAILURE OF Y OUR AND DATE SPEC	by on of the follone each copy of the OUR ACKNOWL	wing methods; (a) By ne offer submitted; or EDGMENT TO BE JLT IN REJECTION
each telegram or letter makes reference	to the solicitation and this ame	ndment, and is received pri	or to the opening hour	and data specifie	d.
12. ACCOUNTING AND APPROPRIAT SEE THE ATTACHED FINANCE		A /EAD) QUEET/Q)			
SEE THE ATTACHED FINANC	3. THIS ITEM APPLIES ONLY	TO MODIFICATIONS OF C	ONTRIACTS/ORDER	s	, ,
	IT MODIFIES THE CONTR	ACTIORDER NO. AS DES	CRIBED ITEM 14.		
(/) A, THIS CHANGE ORDER IS ISSU ORDER NO. IN ITEM 10A.					
B. THE ABOVE NUMBERED CON appropriation date, etc.) SET FOR	TH IN ITEM 14, PURSUANT TO	THE AUTHORITY OF FA	IISTRATIVE CHANGES R 43,103(b).	S (such as chang	es in paying office,
C. SUPPLEMENTAL AGREEMEN AUTHORITY FOR OTHER THAN	T IS ENTERED INTO PURSUA	NT TO AUTHORITY OF:			
. D. OTHER (Specify type of modific	sation and authority)			· •	
MELOTIMENT OF LONDS P					
E, IMPORTANT: Contractor M is not 14. DESCRIPTION OF AMENDMENT/	is required to sign this down double is required to sign this down down and down it is required by the sign of	cument and return copie UCF section headings, inch	s to the issuing office. uding solicitation/contra	ct subject matter	where feasible.)
THE PURPOSE OF THIS MOD FUNDING CITED ON THE ATT SEE PAGE TWO	IFICATION IS TO PROVI	DE FOR AN INCREM	ENT OF FUNDING	3. ACCORDI	
Except as provided herein, all terms and and effect. 15A. NAME AND TITLE OF SIGNER (2)		16A. NAME AND TU R. Brig	fLE OF CONTRACTIN п. Bradley		
15B. CONTRACTOR/OFFEROR	15C, DATE SIG	NED 16B UNITED STAT	cting Officer		16C. DATE SIGNED
(AN) ANIALIA IN LALEN LEGISLA		(0) (0)			APR 2 2 200
(Signature of person authorized to sign	<u>, </u>	(Signature of Contra			
SN 7540-01-152-8070		30-105		STANDARD FOR Prescribed by GS	RM 30 (REV. 10-83)
PREVIOUS EDITION UNUSABLE NAVOCHR OVERPRINT (3-88)				Prescribed by GS FAR (48 CFR) 53	

Effective as of the date of this Modification:

1. Section B is revised to read as follows:

SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS

ITEM NO.	SUPPLIES/SERVICES	ESTIMATE D COST	FIXED FEE	TOTAL ESTIMATED COST & FIXED FEE
0001	The Contractor shall furnish the necessary personnel and facilities to conduct the research effort and provide reports and data as described in Section C.		(C) (S)	
000101	ACRN: AA			
	ESTIMATED CONTRACT ERATION:	Page 1 1 1 1	(b) (A)	(07.841)

- 2. The funds available for performance of this contract are increased by the amount set forth in the attached Financial Accounting Data Sheet.
- 3. Section G, paragraph 1.5., entitled, "Allotment of Funds" is revised to read as follows:

Allotment of Funds

(a) It is hereby understood and agreed that this contract will not exceed a total amount of	
(b) (a) and a fixed fee of (b) (4) and a fixed fee of (b) (4) and a	
(b) The total amount presently available for payment and allotted to CLIN 0001 of this contract is \$1.00. It is estimated that the amount allotted of \$1.00. Will cover the period from date of award through 12 June 2005.	

This modification makes no change to the total estimated cost and fixed fee of this contract, and all other terms and conditions remain unchanged.

FINANCIAL ACCOUNTING DATA SHEET - NAVY

PASE 1 0F 1		HAVY INTERNAL USE DNLY REF DOCACRIN	5.00 PR#D4FR01521-01 FRC:34AR	00.00	00.0	IN COMPTROLLER, ONR CONTRACT REVIEWED
	7,	AMOUNT (CRITICAL)	00' '00' '00' '	\$90,060.0	\$90,000.00	PALCOM
		A POLI		PAGE TOTAL	GRAND TOTAL	
3. WOD (CRITICAL) 4. PR NUMBER 04. PR NO.001 04. PR 03.521-01		COST CODE PROJ UNIT MCC	000		QF.	
4 PR NUMBER 04 PR03521-01		PAA	0,00000			
		<u></u> =	ฉ	-		SEGNATU
CAL		H AAA (CRITICAL)	068342			COMPTROLLER APPROVAL: FOR FISCAL DATA AND SIGNATURE BY DATE:
MOD (CRITK PODOOL		A. S.	C C C C C C C C C C C C C C C C C C C			COMPTROLLS FOR FI BY DATE:
m		E PARM	48.	1	i	
CAL		a 8 5	522	-		Ε.
2 SPIN (CRITICAL)		C SUBHEAD (CRITICAL)	MIRS S			20 EC. 7
(T)	COUNTING	B. APPROPRIATION (CRITICAL)	1741319		:	2
1. CONTRACT RUMBER (CRITICAL) NOOO1404COO74	B. LENE OF ACC	ACRN APPROPRI- (CRITICAL) (CRITICAL	2			PREPARED/AUTHORIZED BY: DATE:
1. CONTRACT HUMBER (C) NOOO1404CGGG74		CUNSUM			-	PREPAREDIAL DATE:

ONR AWARD FORM (2/00) - version 1.1

Contract Distribution Sheet

PR Nur Contrac Special	t Number:	04PR03521-01 N00014-04-C-0074-/P00001 BKM ONR: 254		(6) (a)		I
Distribu		2 6 2004	Distributed By:		· .	
	PCO, ONR Arti	ngtoπ (Original)				
_	FXCT FRANCIS X CA SIMPLY SPAR: 59 DELROSE	or Code and Address: NNING SE TECHNOLOGIES				
	DCM PITTSBU FEDERAL BLD 1000 LIBERTY	G ROOM 1612				
		eand Address HQ0337: BUS CENTER DFAS CO NOR 6	TH ENTITLEME	NT OPERATIONS		
	ONR: 00CC11 Program Office	r: Luise Couchman, ONR 334				

APR 2 3 2004

- 'AMENDMENT OF SO	LICITATION/MODIFICATION O	F CONTRACT	CONTRACT ID	CODE	PAGE OF	PAGES
2. AMENDMENT/MODIFICATION NO). 13. EFFECTIVE DATE	4. REQUISITION/PUR		5. PROJEC	T NO. (if appl	icable)
P00003	SEE BLOCK 16C	06PR01419-00		N.A.		
6. ISSUED BY CODE		7. ADMINISTERED BY	f (if other than iten		CODE 53	3911A
			-	SCD-C		
OFFICE OF NAVAL RESEARCH		DCMA PITTSBUR	GH			
ONR 254 Brian Murphy (703)696-003	O4	VA HIGHLAND D		v		
E-mail: brian_murphy@onr.navy.mil						
875 North Randolph St. Suite 1425		7180 HIGHLAND		,		
Arlington VA 22203-1995		PITTSBURGH, PA	15206-1297			
8. NAME AND ADDRESS OF CONTI	RACTOR (No., street, county, State:	and ZIP Code)		MENOMENT OF SOI	LICITATION	10 .
FRANCIS X CANNING			N.A.	TEN YOUR PERMANA		
SIMPLY SPARSE TECHNOLO	GIES		<u> </u>	TED (SEE ITEM 11)		
59 DELROSE DRIVE	i			ODIFICATION OF C	CONTRACT/C	RDER
MORGANTOWN, WV 26508-0)948		NO.			
,			1	I-04-C-0074		
			10B. DA	ATED (SEE ITEM 13	3)	
	LITY CODE			3.0004		
1GYT5			19 MAR	(2004		
	11. THIS ITEM ONLY APPLIE	S TO AMENDMENTS OF	SOLICITATIONS			
Offers must acknowledge receipt of the completing items 8 and 15, and return (c) By separate letter or telegram while	ning copies of the amendment; (to chincludes a reference to the solicita	data specified in the solicit b) By acknowledging receip ation and amendment num	lation or as amend of the amendment bers. FAILURE O	ed, by on of the folk of on each copy of the F YOUR ACKNOW!	wing method he offer subm LEDGMENT	s: (a) By litted; or TO BE
RÉCEIVÉD AT THE PLACE DESIGN OF YOUR OFFER. If by virtue of this each telegram or letter makes referen	amendment you desire to change a	in offer already submitted, :	such change may l	be made by telegrar	n or letter, pro	CTION ovided
12. ACCOUNTING AND APPROPRIA	TION DATA (if provinct)	mient' and iz leceived butter	to the obstant no	ur and data specific	· · · · · · · · · · · · · · · · · · ·	
SEE THE ATTACHED FINAN		(FAD) SHEET(S)				
SEE THE ATTACHED HIVA	13. THIS ITEM APPLIES ONLY TO		NTOTACTS/OPD	FDS		
	IT MODIFIES THE CONTRA			LNG		
(3) A. THIS CHANGE ORDER IS IS ORDER NO. IN ITEM 10A.	SUED PURSUANT TO (Specify Au	thority) THE CHANGES SE	T FORTH IN ITEM	/ 14 ARE MADE IN	THE CONTR	ACT
	<u></u>					
B. THE ABOVE NUMBERED CO appropriation deta, etc.) SET FO	ONTRACT/ORDER IS MODIFIED TO ORTH IN ITEM 14, PURSUANT TO T	O REFLECT THE ADMINIS THE AUTHORITY OF FAR	3TRATIVE CHANG 43,103(b).	∌ES (súch es chang	es in paying (office,
			:	Maria de la companya		
C. SUPPLEMENTAL AGREEME	NT IS ENTERED INTO PURSUAN	T TO AUTHORITY OF:				··· ···
LI AUTHORITY FOR OTHER THA	N FULL AND OPEN COMPETITION					
D. OTHER (Specify type of mod	ification and authority)					
ALLOTMENT OF FUNDS	per FAR 52.232-22, Limitatio	n of Funds.				
E. IMPORTANT: Contractor X is n	is required to sign this docu	ment and return conies	to the issuing offic	4		
14. DESCRIPTION OF AMENDMEN					where feesib	le.)
THE PURPOSE OF THIS MO					NGLY, TH	E
FUNDING CITED ON THE AT	TACHED FINANCIAL ACCO	DUNTING DATA SHE	ET IS MADE A	VAILABLE.		
SEE PAGE TWO						
Except as provided herein, all terms a	and conditions of the document refer	enced in item 9A or 10A, as	s heretofore chang	ged, remains unchar	nged and in fu	ull force
and effect.					-	
15A. NAME AND TITLE OF SIGNER	(Type or print)	16A. NAME AND TITL	E OF CONTRACT	ING OFFICER (Typ	e or print)	
			and the second s			
				<u> </u>		
15B, CONTRACTOR/OFFEROR	15C. DATE SIGNE	D 169 INITED STATES	OF MICH		16C. DATE	SIGNED
	j					
		B)			OCT 2 4	2012
(Signature of person authorized to sig	(nç	(Signature of Contracti	ing Officer)			•
SN 7540-01-152-8070		30-105		STANDARD FOR		10-83)
PREVIOUS EDITION UNUSABLE NAVOCNR OVERPRINT (3-88)				Prescribed by GS FAR (48 CFR) 53		
15 15 OOM OATHERINI (0-00)				LART (40 OLIS) 30	ハルマン	

Effective as of the date of this Modification:

1. Section B is revised to read as follows:

SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS

ITEM NO.	SUPPLIES/SERVICES	ESTIMATED COST	FIXED FEE	TOTAL ESTIMATED COST & FIXED FEE
0001	The Contractor shall furnish the necessary personnel and facilities to conduct the research effort and provide reports and data as described in Section C.			\$654,314.00
000101	ACRN: AA			
000102	ACRN: AB			
000103	ACRN: AC			
	ESTIMATED CONTRACT DERATION:			\$654,314.00

- The funds available for performance of this contract are increased by the amount set forth in the attached Financial Accounting Data Sheet.
- 3. Section G, paragraph 1.5., entitled, "Allotment of Funds" is revised to read as follows:

"Allo	ment of Funds			
(a	It is hereby understood and agreed that	this contra	act will not exceed	a total amount of
	14 00- including an estimated cost of		and a fixed fee of \$	

\$004,5 (4.00, including an estimated cost of	GIIO & IMOD IVO OX 1
(b) The total amount presently available for p	ayment and allotted to CLIN 0001 of this contract
is including an estimated cost of	and a fixed fee of
estimated that the amount allotted of	will cover the period from date of award through
10 November 2006."	

This modification makes no change to the total estimated cost and fixed fee of this contract, and all other terms and conditions remain unchanged.

FINANCIAL ACCOUNTING DATA SHEET - NAVY

MINOLAGO	1. CONTRACT NUMBER (CRITICAL)	((CRITICAL)	2 SPIN (CRITICAL)	ड	-	3. MOD (CRITICAL)	TICAL)		-	PR NUMBE	1) 3. MOD (CRITICAL) 4. PR MARBER				PAGE 1 OF 1	
Accordance Acc	N0001404C00	74				P0000	E.		_	06PR0	1419-00					
MANUAL M	ا ا	OF ACCOUNTING			1				ł	Ì				.,		
CONTINUED BIT CATION CAT				-				····				ST CODE		ANOUR	USE ONLY	
AC 176119 WAS 255 EA 313 0 0 066542 20 000000 05577 000 AAAO S187,5982,00	CLNO)											2011	POU & SUF	(CRFFCAL)	REF DXCACRR	
REDWITHGREED BY: COMPTRA COMPTRA STATE THE PARTY OF T	*		WIAS	255		ļ.—				000000	05572	000	4ARO	\$187,992.00	PR#06PR01419-00 PRC:34A	es
PAGE TOTAL PAGE T			-,		— <u>————————————————————————————————————</u>		·		:		. ==					
ROBATTING COMPTRE					, 1. 77											
REDAILYMORGED BY:		·····				<u>-</u>				······						
REGION/HARRED BF: COMPTRE PAGE TOTAL FOR DATE DAT		<i>.</i>			<u></u>									,	····	
REDAUTHOREZED BY: SECONDATE GOADS TOTAL SECONDATE SECONDATE BY SECONDATE SECONDAT						<u></u>	 		· · · ·					······································		**************************************
REDMUTHORIZED BY: COMMETTER COM						<u></u>		<u></u>		<u> </u>						**-
REDAVITHORIZED BY: COMMETTED GRAND TOTAL STORY GRAND TOTAL STORY DATE:			· .					, • • • • • •								
REDAUTHORREED BY: SECONSTRICT STATE SECONSTRICT S											- -					
REDAVITHORIZED BY: COMPTR GRAND JOTAL S GRAND JOTAL S OM 27 (B) DATE WATE DATE TO A 27 (B) TO A 27	·				<u> </u>					<u> </u>				····		
REDAUTHORIZED BY: COMPTRE FO FO DATE DATE					· <u>-</u>		· 		· · ·	· ·						
REDAUTHORIZED BY: COMPTRE GRAND TOTAL S GRAND TOTAL S DATE DATE														_,		
REDAVITHORIZED BY: REDAVITHORIZED BY: SOMPTRE										·*·						
REDAUTHORIZED BY: REDAUTHORIZED BY: SECONAPTRE FOR THE BY DATE:		·· · · ·				···		<u>-</u>								
REDAUTHORIZED BY: REDAUTHORIZED BY: ST. COMPTR. ST. CO					<u></u>							·			· · · · ·	
REDAUTHORIZED BY: REDAUTHORIZED BY: STOCKAPTRE STOC						····:										
REDAUTHORIZED BY: COMPTRE FO BY COMPTRE FO BY COMPTRE BY		····-			• • • •							:				
REDAUTHORIZED BY: REDAUTHORIZED							:								<u> </u>	
REDAUTHORIZED BY: REDAUTHORIZED BY: FO DATE: DATE:							-		-			PA	SE TOTAL	\$187,992.00		
REDAUTHORIZED BY: COMPTRE FO BY DATE:							•	•			ا	GRA	ND TOTAL	\$187,392.00		
DATE:	PREPAREDVAUTHORS	:YB C92			<u> </u>	COMPTRO							1	13/16 morning	COMPANY TO SATISTICAL OF	-
	ý					BY DATE:						l	1	A SI COME INCIDE		

Contract Distribution Sheet

PR Nu Contra Specia	act Number:	06PR01419-00 N00014-04-C-0074-/P00003 BKM ONR: 254	
Distrib	ution Date:	OCT 2 8 2005	Distributed By:
	PCO, ONR A	Arlington (Original)	
V	Short Contra FXCT FRANCIS X SIMPLY SPA 59 DELROSI	ARSE TECHNOLOGIES	
	DCMA PITTS VA HIGHLAI 7180 HIGHL	AP Code & Address S3911A: SBURGH ND DRIVE FACILITY AND DRIVE BLDG 6 SH, PA 15206-1297	
	DFAS COLU PO BOX 182	ode and Address HQ0337: IMBUS CENTER DFAS CO NO	RTH ENTITLEMENT OPERATIONS
	ONR: 00CC11 Program Off	īcer: Luise Couchman, ONR 33	4



AWARD/

3a. ISSUED BY:
Office of Naval Research
875 North Randolph Street

FILE		MODIF	IC A	TION	1 2.		n, VA 22203		
の数ロイ		7 L	IUF	TION		000			
MATORGED	EGI	1, INSTRUMENT TYPE: Grant			3	CFDA: 12.300			
		2. AUTHORITY:		5004	3c.	DUNS NUI	MBER:		
4. AWARD NO.:		10 USC 2358, 3 5 MODIFICATION NO.:		6304 DIFICATION TYP	PE: 7. P	R NO.:			
N00014-11-1-0584	· · · · · · · · · · · · · · · · · · ·	P00003		crement		13PR01			
8. ACTIVITY/AGENCY PROPO N/A	SAL NO.:	9. RECIPIENT PROPOSA N/A	AL NO.:	10. PROPOSA 16-DEC-1		11. ACT	IVITY TYPE:	12. PROGRA	W TYPE:
13. ISSUED TO 13b, CAG		DI/EFT NUMBER:		ITTANCE ADDR		IFFERENT	FROM BLOCK	13):	
UNIVERSITY OF KEN OFFICE OF GRANTS 201 KINKEAD HALL LEXINGTON, KY 405	TUCKY RES		San	e as biod	K #13				
13d. BUSINESS OFFICE CONT	TACT:		1						
DEBORAH K. DAVI		BBF00.	_						
13e. TELEPHONE NUMBER: (859) 2579420	13f. EMAIL AD ddavis@email	uky.edu ·							
15, RESEARCH TITLE AND/OF Magneto-Stress An	DESCRIPTION alysis	N OF PROJECT AND/OR PRO	DPOSAL T	TTLE:			··········		
16. FUNDING	ACTIVITY	AGENCY SHARE REC	IPIENT S	HARE	••••	TOTAL	17. CURRENT	FUNDING PER	QOI
PREVIOUSLY OBLIGATED:							. 1	TA THROUGH	
OBLIGATED BY THIS ACTION	:		1				N	I/A	• •
TOTAL OBLIGATED ON AWAF	RD:		-				18, PERIOD O	PERFORMAN	ICE .
FUTURE FUNDING:			-	· · · · · ·				01-JUN-11 THROUGH	•
GRANT TOTAL:	ı	· · · · · · · · · · · · · · · · · · ·	i		\$396,9	67.00	. ,	31-MAY-13	•
19.ACCOUNTING AND APPRO See attached Finan	OPRIATION DA ncial Acco	TA: Dunting Data Sheet	(s)	<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>					
20a. PRINCIPAL INVESTIGATO	OR/RECIPIENT		21. TEC	HNICAL REPRES	SENTATIV	E		21b. CODE:	
TECHNICAL REPRESENTATIV			21a. NAM	^{ME:} John D.	Mueno	ch		ONR 33	33
STEPHEN D. GEDNEY	-		875	RESS: ce of Nava North Rand ngton, VA	iolph a	Street			
20b. TELEPHONE NUMBER:	20c. EMAIL AD	DRESS:	21d. TEL	EPHONE NUMB	BER:	 	21e. EMAIL AD	DRESS:	
() 859-257-3926	gedney@engr.		((70	3) 588-236	61		MUENCHISONR.	NAVY.MIL	
22. AWARDING OFFICE CON- 22a. NAME: Carol A. Po	TACT orter	22b. CODE: ONE BD025	23a. ADI	VINISTRATIVE C	OFFICE:			23b. CODE: N6288	0
22c.ADDRESS: Office of Naval Re 875 North Randolph Arlington, VA 2220	esearch 1 Street		230 CHIC PHON	REG. OFFIC SOUTH DEAR AGO, IL 60 E: (312) 8 (312) 353	RBORN, 0604-1 886-54	ROOM :			
(703) 696-2587	PORTERCEONR	.NAVY.MIL					Accies.	last soc=	
24. SUBMIT PAYMENT REQU		25a. PAYING OFFICE:	25b. CO	DE: 00251	26a	. PATENT	OFFICE:	26b. CODE: N0001	4
Same as block #23a		DFAS COLUMB-NAVY COLUMBUS, OH 432	ACQ H		AT On 87	TN: ONF e Liber 5 North	Naval Reset BDCC ty Center Randolph S	earch Street, Su	

AWARD NO.	AWARD/MODIFICATION	MODIFICATION NO.	
N00014-11-1-0584 27. SPECIAL INSTRUCTIONS:		P00003	
28 DELEGATIONS: The administration duties lister	below have been delegated to the administrative office	s (block 23a). Upon request the awarding	office contact (block 22)
will make their full text available. Please direct ques	U A Hore Arek and a 1884	mil/Contracts-Grants/Regional	
Full Delegation			
29. TERMS AND CONDITIONS: The following term Upon request the awarding office contact named in	s and conditions are incorporated herein by reference v block 22 will make their full text available, or they can b	vith the same force and effect as if they we found as described below.	are given in tuk text.
DOCUMENT The following documents may be for			
http://www.onr.navy.mil/Contracts	md at: -Grants/submit-proposal/grants-propo	sal/grants-terms-conditions	aspx .
UAAC Acceptance C November 2003			
Agency Specific February 2011			
UAWA Award A November 2003 Core June 2011			
30. OPTIONS OPTION NO.	AMOUNT	PERIOD	
(1)			
(2)			
(4)			
31 REPORTS: The following reports must be subm	itted to the indicated addressees, in the indicated quan 298, Report Documentation Page, accompanying then	tities, within 90 days following the expiration.	on or termination of
Block 12a of the SF298 as follows: "Approved for P	ublic Release; distribution is Unlimited".	t billiog chiciwae stated in the divident	Company Company
ADDRESSEE	REPORT TYPE		COPIES
See block #21	Final Technical Report	with SF298	1
	with SF298	mance Report (As Require	ed) 1
			-
See block #23a	Report of Inventions an Final Technical Report	d Subcontracts - DD 882	1 1
	Interim Research Perfor	mance Report (As Require	ed) 1
		Status Report - SF425 -	- 1.
	Including Line Item 11	111 677.00	1
Defense Technical Information 8725 John J Kingman Road Ste		with SF298 mance Report (As Require	1
Fort Belvoir, VA 22060-6218	with SF298	······································	
See block #26a	Report of Inventions an	d Subcontracts - DD 882	1
Naval Research Laboratory	Final Technical Report		1
ATTN: CODE 5596		mance Report (As Require	ed) l
4555 Overlook Avenue SW Washington, DC 20375-5320	with SF298		
32 FOR THE RECIPIENT	20000345-450000005-500-500-500-500-500-500-500	TED STATES OF AMERICA OF AWARDING OFFICER	
S231 SIGNATURE OF PERSON AUTHORIZED TO		VI AWARDING CEFFOER	
N/A - SIGNATURE NOT REQUIRE	D ON THIS AWARD		
325, NAME AND TITLE OF SIGNER	32c DATE SIGNED 33b. NAME AND T	ITLE OF AWARD OFFICER	33c. DATE SIGNED
ASSESSMENT WAS TRUE OF STORER	Ellen Simo		15-NOV-12

NAV
>
\$
Ž
Ċ
Ш
冚
I
ഗ
⋖
늣
DATA SHEE
2
É
드
ད
ರ
Acc
ğ
⋖
ÄL
$\frac{8}{5}$
$\underline{\circ}$
\neq
\Rightarrow
\equiv
بببلبة

		AL.	Z-	FRC; 33RP			e	
		NAVY INTERNAL USE ONLY	REF DOC/ACF	PR#13PR01818-00 FRC:33RP		Stavy S	for COMPTROLLER, ONR CONTRACT REVIEWED	
				00	00	00	ROLLEF	
		AMOUNT	(CRITICAL)	\$126,967.00	\$126,967.00	\$126,967.00	FOY COMPT	
	7.		PDU & SUF	0 4 X C	PAGE TOTAL	GRAND TOTAL		
i		COST CODE	MCC	0000	PA(GRA		
R NUMBER 13PR01818-00		-	PROJ	00000				
4. PR NUMBER 13PR018		- AA	1	00000000			RE	
		=	:	G S			SIGNATU	
		AAA	(CRITICAL)	068342		:	COMPTROLLER APPROVAL: FOR FISCAL DATA AND SIGNATURE BY	
CRITICAL 003		ص بي م		0			ROLLER FOR FISC PV	
3. MOD (CRITIC PODODO3		F. RFM		8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8			COMP	DATE
L) 3. MOD (CRITICAL)		E. PARM		45 -				
(CAL)		- E	15 	4 I O	_			
2. SPIN (CRITICAL)		C. SUBHEAD	(CRITICAL)	н2DB				
JAL)	COUNTING	CLINISLIN A, B. B. APPROPRIATION	(CRITICAL)	1731319				
1. CONTRACT NUMBER (CRITICAL)	6 UNE OF ACC	A. ACRN	(CRITICAL)	AD			PREPARED/AUTORIZED BY:	
1. CONTRACT	# TO O O O O	CLINVSUN					PREPARED!	DATE

A A A CACO

FINANCIAL ACCOUNTING DATA SHEET - NON-NAVY Dod ACTIVITIES

	NAVY INTERNAL USE ONLY REF DOCACRN				CT REVIEWED
			7		ONR CONTRA
	AMOUNT (CRITICAL)		\$.00	\$.00	for COMPTROLLER, ONR CONTRACT REVIEWED
2. SPIIN (CRITICAL) 3. MOD (CRITICAL) 4. PR NUMBER 13 PC 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ACCOUNTING CITATION	This page is intentionally blank	PAGE TOTAL	GRAND TOTAL	COMPTROLLER APPROVAL: FOR FISCAL DATA AND SIGNATURE BY DATE:
CONTRACT NUMBER (CRITICAL) 0014-11-1-0584	en 7.				ZED BY:
1. CONTRACT NUMBER (CRI N00014-11-1-0584	6. CLINISLIN ACRN (CRITICAL)	,			PREPARED/AUTHORIZED BY: DATE:

	SPECIAL REQUIREMENTS	MODIFICATION NO.	
AWARD NO. N00014-11-1-0584	SPECIAL REQUIREMENTS	P00003	
		1 71-	
	This page is intentionally	plank	
,		,	
		·	
	•		
,			
	•		
<u> </u>			

		-	
·			



AWARD/

3a ISSUED BY:
Office of Naval Research

(B) II	H		MODIF	ICA	TION		ngton, VA 22203		
W			1. INSTRUMENT TYPE:		· · · · · · · · · · · · · · · · · · ·	3b. CFD		 	
A	RESEARC		Grant 2. AUTHORITY:				.300 IS NUMBER:	· · · · · · · · · · · · · · · · · · ·	
			10 USC 2358, 3	1 USC	6304	Jac. Dor	NO MONIBER.		
4. AWARD NO.: N00014-11-1	-0625		5. MODIFICATION NO.: P00007	Inc	DIFICATION TYPE: crement		PR01330-00		
8. ACTIVITY/AGENC	Y PROPOSAL NO.:	:	 RECIPIENT PROPOSA N/A 	L NO.:	10. PROPOSAL DA 04-APR-11	TE: 1	1. ACTIVITY TYPE:	12. PROGR	AM TYPE:
13. ISSUED TO	13b. CAGE:	13c. ED!/	FT NUMBER:	14. REMI	TTANCE ADDRESS	(IF DIFFI	ERENT FROM BLOCK		
1	RANTS AND C	ONTRAC	RCH FOUNDATION	Sam	e as block #	13			
13d. BUSINESS OFF				1					
Deborah Da 13e. TELEPHONE NO	JMBER: 131. EM/	All ADDRI	ISS:						
(859) 257-94	120			COCAL 37	TI F.				·····
			FPROJECT AND/OR PRO agnetic Modeling		ILE:				
16. FUNDING	AC.	TIVITY/AG	ENCY SHARE REC	IPIENT SH	IARE	TO	OTAL 17, CURRENT	FUNDING PER	SOD
PREVIOUSLY OBLIG							1	₹/A THROUGH	
OBLIGATED BY THIS	ACTION:						1	I/A	
TOTAL OBLIGATED	ON AWARD:						18. PERIOD O	F PERFORMAN	
FUTURE FUNDING:			· · · · · · · · · · · · · · · · · · ·					16-MAY-11 THROUGH	
GRANT TOTAL:					\$1,05	0,615	.00	31-DEC-14	ŀ
19. ACCOUNTING AN See attached	ND APPROPRIATION Financial	ON DATA: Accour	ting Data Sheet	(s)					
20a. PRINCIPAL INVI		PIENT			NICAL REPRESENT		- 	21b. CODE:	
TECHNICAL REPRES			•	21a, NAM	^{E:} Steven J.	Russe	11	ONR 33	31
KOBIKI G. PID	ra io		· :	875 N	ress. de of Naval R Worth Randolp ngton, VA 222	h Str	eet		
20b, TELEPHONE NI	JMBER: 120c. EM	AIL ADDR	ESS:	21d. TELE	EPHONE NUMBER:	,, 	21e. EMAIL AL	DRESS:	······································
(859) 25717		soruky.edu		(703)) 696-4714		STEVEN.J.RUS	SELLONAVY.MIL	
22. AWARDING OFFI 22a. NAME: John			22b. CODE: ONR BD245	23a. ADM	INISTRATIVE OFFIC	:Ε:		23b. CODE: N6288	0
22c.ADDRESS: Office of Na 230 SOUTH DE ROOM 380 CHICAGO, IL	val Researc ARBORN 60604-1595			230 S CHICA PHONE	REG. OFFICE (SOUTH DEARBOR AGO, IL 60604 E: (312) 886- (312) 353-20	N, RO 1-1595 -5423	OBE MO		
22d. TELEPHONE NU		AIL ADDR HIAPPEONA		1					
(312) 886-19 24. SUBMIT PAYMEN	<u> </u>		. PAYING OFFICE:	25b. COD	E:	26a. PA	TENT OFFICE:	26b. CODE:	.,, ,, , .,,
Same as bloc		D	FAS COLUMB. NORT DLUMBUS, OH 4321	H ENTL		ATTN: One I 875 N	ce of Naval Resc ONR BDCC Liberty Center North Randolph Ogton, VA 22203	Street, Sui	

AWARD NO.	AWA	RD/MODIFICATION	MODIFICATION NO. 200007	
N00014-11-1-0625			20007	I
27. SPECIAL INSTRUCTIONS:				
28, DELEGATIONS: The administration dutie	s listed below have be	een delegated to the administrative office (block 23a). Upon request the awarding	office contact (block 22)
will make their full text available. Please direct	t questions to the con	dacts @: http://www.onr.navv.mi	1/Contracts-Grants/Regional	-Contacts.aspx
22.5.2				
Full Delegation				
29, TERMS AND CONDITIONS: The followin Upon request the awarding office contact nar	g terms and condition	is are incorporated herein by reference with	h the same force and effect as it they v found as described below	vere given in tuit text.
Upon request the awarding office contact nar DOCUMENT	ned in Block 22 Will m	are their tun text available, or eley can be	iodila as accorded balleti.	
-1 C-33 - J A b	e found at:			
http://www.onr.navy.mil/Contr	acts-Grantš/su	bmit-proposal/grants-propos	al/grants-terms-condition	s.aspx
ONR Basic Research Grant - Oc	tohor 2010	•		
Chandred Towns and Conditions	for Research	Grants - June 2011 (Core)		
Standard Terms and Conditions	for Research	Grants - February 2011 (Age	ncy Specific)	
UACC Acceptance C				
UAWA Award A				
			.*	
	,			
30. OPTIONS OPTION NO.		AMOUNT	PERIOD	
(1)				
(2) (3)	67	• •		
(A)			1 200 m	
	e submitted to the ind	icated addressees, in the indicated quanti	ies, within 90 days following the expira	tion or termination of
Language Cinal Tarbaical Paparte must ha	ve a SF298. Report L	incimentation Page, accompanying mens	Unless otherwise stated in the award/	nodification, complete
Block 12a of the SF298 as follows: "Approve	d for Public Release;	distribution is Orientited .		COPIES
ADDRESSEE	3.44	REPORT TYPE		
See block #21	,	Final Report is not requ	ired	0
		Interim Research Perform	mance Report (As Requir	red) 1
		with SF298		j
	į]
		Report of Inventions and	Subsent viets - DD 993	1
See block #23a		Report of Inventions and Final Report is not requ	ired	. 1
,	·	Interim Research Perform	ance Report (As Requir	
		Final Federal Financial	Status Report - SF425	- 1
		Including Line Item 11		
Defense Technical Informa	tion Contor	Final Report is not requ	rired	0
B725 John J Kingman Road	Ste 0944	Interim Research Perform	ance Report (As Requir	ed) 1
Fort Belvoir, VA 22060-62	18	with SF298	-	
POLO BOLIOZZ, III dans		į.		
See block #26a		Report of Inventions and	l Subcontracts - DD 882	2 1
1				
		<u> </u>		
			i rad	0
Naval Research Laboratory	ı	Final Report is not req Interim Research Perform	ulleu mance Renort (As Recui	_
ATTN: CODE 5596		with SF298	mance report (no negar.	
4555 Overlook Avenue SW Washington, DC 20375-5320	I •	1 1 2 1 3 2 3 3		ì
washington, DC 20373-3320		1		<u> </u>
32 FOR THE RECIPIENT		33, FOR THE UNIT	ED STATES OF AMERICA	
32a SIGNATURE OF PERSON AUTHORI	ZED TO SIGN		OF AWARDING OFFICER	
N/A - SIGNATURE NOT RE	QUIRED ON TH	SAWARLI		
				AGE DATE BUSINESS
926, NAME AND TITLE OF SIGNER	118		TLE OF AWARD OFFICER	33c. DATE SIGNED 28-OCT-14
*	<u>, , , , , , , , , , , , , , , , , , , </u>	Ellen Simo	norr	179-001-14

~	
<	
_	
ཕ	
Z	
ŧ	
ŧ	
141	
Ш	
工	
(J)	
_	
۲,	
٣,	
⋖	
Ω	
L ACCOUNTING DATA SHEET - NAVY	
Ü	
Z	
\equiv	
<u> </u>	
<u>_</u>	
ر_	
O	
Ō	
∺	
ソ	
ď	
1	
급	
FINANCIAL /	
Z	
◂	
ラ	
=	
ш	

1. CONTRACT NUMBER (CRITICAL)	UMBER (CRITIL	JAU)	2. SPIIN (CRITICAL) 3. MOD (CRITICAL)	CAL)		3. MOD	MOD (CRITICAL PO O O O 7	~		4. PRNUMBER 15PR01	PR NUMBER 15PR01330-00					
I TOOON	6. LINE OF ACK	COUNTING					3							7.		
CLINISLIN A. B. APPROPRIA APPROPRIA (CRITICAL) (CRITICAL)	A. ACRN (CRTICAL)	B, APPROPRIATION (CRITICAL)	C. SUBHEAD (CRITICAL)	g &	E. PARM	F. RFM	ი გ	H. AAA (CRITICAL)	= =	.l. PAA	K COS PROJ	COST CODE	POLL	AMOUNT (CRITICAL)	NAVY INTERNAL USE ONLY REF DOCACRN	
			-		ţ	;;	,	070000	Ę	50000	UNIT	MCC	& SUF	\$20,000,00	SP#15DB01230-00 RPC,34BC	
	문 -	116 117 117 117 117 117	A T T T T T T T T T T T T T T T T T T T	O		9 9 9 9						-				
												J&	PAGE TOTAL	\$20,000.00		
												GRA	GRAND TOTAL	\$20,000.00		
PREPARED/AUTORIZED BY:	TORIZED BY:	<u> </u>				COMP	FOR FISC	COMPTROLLER APPROVAL: FOR FISCAL DATA AND SIGNATURE	GNATU	. W				A CONTRACT OF A	The state of the s	
DATE:						DATE	B⊀							IOT CUMPITYOL	ION COMPTROLLER, ONR CONTRACT REVIEWED	
ONR AWARD FORM (10/99) - version 1.1	IRM (10/99) - vi	ersion 1.1		ļ												

7000

FINANCIAL ACCOUNTING DATA SHEET - NON-NAVY DoD ACTIVITIES

1. CONTRACT NUMBER (CRITICAL) NO0014-11-1-0625	TICAL) 2. SPIIN (CRITICAL)	3. MOD (CRITICAL) P00007	4. PR NUMBER 15PR01330~00				
5. 6. CLINISLIN ACRN (CRITICAL)		ACCOUNTING CITATION		8. AA. P.D.	AMOUNT (CRITICAL)	NAVY INTERNAL USE ONLY REF DOC/ACRN	
	This	This page is in	intentionally blank	an)k			
			/d	PAGE TOTAL	\$.00		
			GRA	GRAND TOTAL	\$.00		
PRÉPÁRED/AUTHORIZED BY:			COMP INCILLER APPROVAE: FOR FISCAL DATA AND SIGNATURE DATE:		for COMPTROLLER, ONR CONTRACT REVIEWED	CONTRACT REVIEWED	
DATE:			UAIE:				
ONR AWARD FORM (10/39) - version 1.1	an 1,1						

AWARD NO. ND0014-11-1-0625	SPECIAL REQUIREMENTS	MODIFICATION NO.	
This	s page is intentionally	blank	
-			:
·			3
	·		
	•		

	•			
		•		



AWARD/

3a ISSUED BY: Office of Naval Research 230 SOUTH DEARBORN

GIT	牙灣	MODIF	ICA	TION	ROOM	380 .GO, IL 60604-1	.595	
		1. INSTRUMENT TYPE:			3b. CFD/			
VAL RI	ESEAR	Grant 2. AUTHORITY:	-·· <u></u> .			300 S NUMBER:		
		10 USC 2358, 3			<u> </u>			
4. AWARD NO.: N00014-11-1-0	0625	5. MODIFICATION NO.: A00002		DIFICATION TYPE: min Mod	7. PR NO 14 P).: R01933-03		
8. ACTIVITY/AGENCY F		9. RECIPIENT PROPOSA N/A		10. PROPOSAL DA	TE: 11.	. ACTIVITY TYPE:	12. PROGRAM T	YPE:
13. ISSUED TO 13 13a. ADDRESS: 5 UNIVERSITY OF OFFICE OF GRA	B333 11 KENTUCKY RES	EDMEFT NUMBER: 50AF SEARCH FOUNDATION		TTANCE ADDRESS te as block #:		RENT FROM BLOCK		
201 KINKEAD F LEXINGTON, KY	40506-0057							
Deborah Dav								
13e. TELEPHONE NUM (859) 257-942	0 ddavis@emai							
15 DECEASON TITLE	ND/OR DESCRIPTIO	N OF PROJECT AND/OR PRO comagnetic Modeline	OPOSAL TI	ITLE:				
16, FUNDING	ACTIVIT	Y/AGENCY SHARE REC	CIPIENT SE	łARE	ТО		FUNDING PERIOD	<u></u>
PREVIOUSLY OBLIGAT	TED:					 :	N/A THROUGH	
OBLIGATED BY THIS A	CTION:					I	N/A	
TOTAL OBLIGATED ON	AWARD:					18. PERIOD O	F PERFORMANCE	
FUTURE FUNDING:	İ		I				16-MAY-11 THROUGH 31-DEC-14	
GRANT TOTAL:			1	\$1,05	0,615.	.00		
	Financial Acc	ounting Data Sheet					Total asset	
20a. PRINCIPAL INVES TECHNICAL REPRESE		T	21. TECH 21a. NAM	NICAL REPRESENT ME: Steven J.	ATIVE Rugge	17	21b. CODE: ONR 331	
ROBERT J. ADAM			21c. ADE	RESS:			, ONG 331	
			875 1	ce of Naval F North Randolg ngton, VA 222	h Str	eet		
20b. TELEPHONE NUM	IBER: 20c. EMAIL A	DDRESS:	21d. TEL	EPHONE NUMBER:	···	21e. EMAIL A	DDRESS:	*
(859) 2571779) 696-4714	a pri	STEVEN J. RU	SSELL®NAVY.MIL	
22. AWARDING OFFICE 22a. NAME: John A	E CONTACT . Chiappe	22b. CODE: ONR BD245	23a. ADN	MINISTRATIVE OFFIC	JE:		23b. CODE: N62880	
22c ADDRESS: Office of Nava 230 SOUTH DEAL ROOM 380 CHICAGO, IL 60 22d TELEPHONE NUM	al Research RBORN 0604-1595	DDBESS.	230 CHIC PHON	REG. OFFICE (SOUTH DEARBOY AGO, IL 60604 E: (312) 886 (312) 353-20	RN, RO 4-1595 -5423	OM 380		
(312) 886-199	1 JOHN. CHIAP	PERNAVY.MIL						
24. SUBMIT PAYMENT	REQUEST TO:	25a, PAYING OFFICE:	25b. CO	DE: 0033.7	26a. PA	TENT OFFICE:	26b. CODE: N00014	
Same as block	#23a	DFAS COLUMB. NOR COLUMBUS, OH 432	TH ENT	L-HQ0337	ATTN: One L	e of Naval Res ONR BDCC iberty Center	earch	
	·	+ + + + + + + + + + + + + + + + + + +	•			orth Randolph gton, VA 22203		1425

AWARD NO.	AWAR	D/MODIFICATION	MODIFICATION NO. A00002	
N00014-11-1-0625 27. SPECIAL INSTRUCTIONS:			A00002	···
See "Special Requirements" A	ttachment	•		
28. DELEGATIONS: The administration duties list will make their full text available. Please direct que	led below have bee estions to the conta	-t- A.	a (block 23a). Upon request the awarding on ail/Contracts-Grants/Regional-	
Full Delegation				
		•	,	
				In Fall Asset
29. TERMS AND CONDITIONS: The following ter Upon request the awarding office contact named I DOCUMENT	in block 22 will mak	are incorporated herein by reference we the their full text available, or they can be	of the same force and effect as if they we e found as described below.	re given in full text.
The following documents may be for http://www.onr.navy.mil/Contracts	ound at: s-Grants/sub	mit-proposal/grants-propo	sal/grants-terms-conditions	.aspx
ONR Basic Research Grant - Octobe Standard Terms and Conditions for Standard Terms and Conditions for UACC Acceptance C UAWA Award A	r Research G	rants - June 2011 (Core) rants - February 2011 (Ag	ency Specific)	
30, OPTIONS OPTION NO.		AMOUNT	PERIOD	
(1)				
(2) (3)			er i	
(4) 31. REPORTS: The following reports must be sub	omitted to the indica	ated addressees, in the indicated quan-	tities, within 90 days following the expiration	on or termination of
the project. Final Technical Reports must have a S Block 12a of the SF298 as follows: "Approved for	SF298, Report Doc	umentation Page, accompanying them	n. Unless otherwise stated in the award/mo	dification, complete
ADDRESSEE		EPORT TYPE	No.	COPIES
See block #21	F	inal Report is not req	uired	0 d) 1
		nterim Research Perior ith SF298	mance Report (As Require	α, τ
See block #23a			d Subcontracts - DD 882	1
	[]	inal Report is not required in terms and the research Performs.	mance Report (As Require	d) 1
	F	inal Federal Financial ncluding Line Item 11	Status Report - SF425 -	1
Defense Technical Information		inal Report is not req	uired mance Report (As Require	d) 1
8725 John J Kingman Road Ste Fort Belvoir, VA 22060-6218		ith SF298	mance report was require	-
See block #26a	R	eport of Inventions an	d Subcontracts - DD 882	1
Naval Research Laboratory	E	inal Report is not req	quired	0
ATTN: CODE 5596 4555 Overlook Avenue SW Washington, DC 20375-5320	I .	Interim Research Perfor with SF298	mance Report (As Require	d) 1
32, FOR THE RECIPIENT		33 FOR THE UNIT	TED STATES OF AMERICA	<u> </u>
32, SUNATURE OF PERSON AUTHORIZED 7	ro sign	33a		
N/A - SIGNATURE NOT REQUIR	RED ON THIS	AWARD		
326. NAME AND TITLE OF SIGNER	320		ITLE OF AWARD OFFICER	33c, DATE SIGNED
		Joshua M.	Kabisch	18-SEP-14

\geq
S
_
Ž
1
ш
Ш
Т
SHEET

⋖
\vdash
⋖
DATA
Ů
Z
二
<u> </u>
<
ᆛ
\circ
O
Ō
3
``
≤
$\overline{\circ}$
\neq
7
$\stackrel{\sim}{\rightarrow}$
4
正

	17COM41	NAVT IN LEKNAL USE ONLY REF DOCACRN				N. S.	VIEWED
	H VANA	NAVT II USE REF DC				6. CARDYDOLLED OND CONTRACT DEVIEWED	an interior and
				\$.00	\$.00	oo Hookerwoo	CONT. INC. LEIN.
		AMOUNT (CRITICAL)				4	5
	7.	PDLI & SUF	E E	PAGE TOTAL	GRAND TOTAL		
13		COST CODE	<u> </u>	PAC	GRAN		
R NUMBER 14PR01933-03		R. PROJ UNIT	intentionally blank				
4. PR NUMBER 1.4 PROI		J. PAA	e n t			JRE	
				_		ID SIGNAT	
~		H, AAA (CRUTICAL)	. එ 			COMPTROLLER APPROVAL: FOR FISCAL DATA AND SIGNATURE	
3, MOD (CRITICAL) A 0 0 0 0 2		oj gg	ල ස ර	-		TROLLER FOR FIS	<u></u>
3.MOD AO(F. RFM	TI:			COM	DATE
		E. PARM	Ë				
ICAL)		GB.					
2, SPIIN (CRITICAL)		C. SUBHEAD (CRITICAL)					
CAL) 5	COUNTING	B. APPROPRIATION (CRITICAL)					
1. CONTRACT NUMBER (CRITICAL) NO 0 0 1 4 - 1 1 - 1 - 0 6 2 5	6. LINE OF AC	A. ACRN (CRITICAL)				PREPARED/AUTORIZED BY:	
1. CONTRACT NO 0 0 1 4 -		CLINISLIN				PREPAREDIA	DATE

Dana A of E

FINANCIAL ACCOUNTING DATA SHEET -- NON-NAVY DoD ACTIVITIES

	AMOUNT NAVY INTERNAL USE CNLY (CRITICAL) REF DOCAGRN		\$.00	\$.00	for COMPTROLLER ONR CONTRACT REVIEWED
3 MOD (CRITICAL) 4. PR NUMBER A00002 14 PR 0 1933 - 03	ACCOUNTING CITATION	ge is intentionally b	PAGE TOTAL	COMPTROLLER APPROVAL: GRAND TOTAL	רטא רושט אויא או
R (CRITICAL) 2. SPIIN (CRITICAL)	•	ag sint.	Beatly day and an artist of the second of th) BY:	
1. CONTRACT NUMBER (CRITICAL) NO 0 0 14 - 11 - 1 - 0 6 2 5	5. 6. ACRN CLINISUN (CRITICAL)			PREPARED/AUTHORIZED BY:	

AWARD NO. N00014-11-1-0625

SPECIAL REQUIREMENTS

MODIFICATION NO. A00002

This administrative modification is issued to: (a) change the payment office and (b) add instructions for numbering vouchers:

A. The payment office is hereby changed:

From: DFAS Columbus - Navy Acquisitions 3990 E. Broad Street, Bldg. 21 Columbus, OH 43213 HQ0251

To: DFAS - Columbus Center North Entitlement Operations P.O. BOX 182266 COLUMBUS, OH 43218-2266 HQ0337

B. The Following payment instructions are hereby added: NUMBERING OF VOUCHERS SUBMITTED TO MOCAS PAYMENT OFFICES Invoices submitted to this payment office must be submitted using the following format:

- * Voucher numbers must begin with BVN
- * Voucher numbers must be 7 characters
- * The format must be BVNX###, where X = Alphanumeric and # = Numeric



AWARD/

3a ISSUED BY: Office of Naval Research 875 North Randolph Street

CAN IT	NH I		MODIF	FICA	ATION	Arl	ington, VA 2226	03-1995	
			1. INSTRUMENT TYPE			3b. CF	DA:		
ALA	RESEARCE		Grant			-	2.300	· · · · · · · · · · · · · · · · · · ·	
			2 AUTHORITY: 10 USC 2358,	31 USC	6304	3C. DU	INS NUMBER:		
4. AWARD NO.:			5. MODIFICATION NO.:	6. MO	DIFICATION TYPE:	7. PR			1
N00014-11-1 8. ACTIVITY/AGENCY			9. RECIPIENT PROPOS		crement 10. PROPOSAL DA		1PR01933-00 11. ACTIVITY TYPE:	12 PROGE	RAM TYPE:
N/A	I PROPOSAL NO	•	N/A	SAL NO.	04-APR-11	''E.	TI. ACTIVITY TYPE.	lrs	ONN TIPE.
			EFT NUMBER:				FERENT FROM BLOC	K 13):	
13a. ADDRESS:	5B333	1150		⊣	me as block #	13			
UNIVERSITY (ARCH FOUNDATION						
201 KINKEAD		ONTRA	. I D						
LEXINGTON, 1	KY 40506-00	57							
13d. BUSINESS OFFI Deborah Da									
13e. TELEPHONE NU	MBER: 13f EMA	AIL, ADDF	RESS:	_					
(859) 257-94	20	email.u	-						
15. RESEARCH TITLE	EAND/OR DESCR	POTION (OF PROJECT AND/OR PR magnetic Modelin	ROPOSAL T	TTLE:		•		
Harge Scare	TOPBIGG BI								
16. FUNDING	AC	TIVITY/A	GENCY SHARE RE	CIPIENT SI	HARE		TOTAL 17. CURREN	IT FUNDING PE	RIOD
PREVIOUSLY OBLIG	ATTERN:		<u> </u>					N/A THROUGH	
								N/A	
OBLIGATED BY THIS	ACTION:								, <u>, , , , , , , , , , , , , , , , , , </u>
TOTAL OBLIGATED	ON AWARD:						18. PERIOD	OF PERFORMA 16-MAY-1	
FUTURE FUNDING:								THROUGH	
GRANT TOTAL:								15-MAY-1	.4
GRANT TOTAL.				i	\$1,05	0,61	5.00		
19, ACCOUNTING AN	ID APPROPRIATIO	ON DATA	: 	+ (a)					
See attached	Financial	Accou	nting Data Shee	c (s)					
20a, PRINCIPAL INVE		PIENT			HNICAL REPRESENT			21b. CODE:	
TECHNICAL REPRES				21c. ADI	ME: Steven J.	Russ	ell	ONR 3	31
				Offi	ce of Naval F				
					North Randolp ngton, VA 222				
				ALLI	ngton, va zzz	: U.J - J.	555		
20b. TELEPHONE NU	JMSER: 20c. EM	AIL ADD	RESS:	21d. TEL	EPHONE NUMBER:		21e. EMAIL	ADDRESS:	
(859) 25717		s⊛uky.ed			3) 696-4714		steven.j.r	ussell@navy.mi	"
22. AWARDING OFFI 22a. NAME: Diane			22b. CODE: ONR BD025	23a. ADI	MINISTRATIVE OFFIC	JE:		23b. CODE; N628	
22c. ADDRESS:		·	OHR DDOZD	ONR	REG. OFFICE (CHIÇA	GO-N62880		
Office of Na 875 North Ra					SOUTH DEARBOR				•
Arlington, V					AGO, IL 60604 E: (312) 886-				
					(312) 353-20				
22d, TELEPHONE NU		AIL ADDI Galesoni							
(703) 696-25 24. SUBMIT PAYMEN	7-		a. PAYING OFFICE:	25b. CO	DE:	26a. P	ATENT OFFICE:	26b. CODE:	
Same as block					00251	رور	on of Novel De	NOOO	14
			DFAS CLEVELAND I CLEVELAND, OH 44			4	lce of Naval Re N: ONR BDCC	pear.cu	
			, , , , ,				Liberty Center North Randolph		ite 1425
							ington, VA 2220		
						1			

AWARD NO.	AWARD/MODI	CICATION	MODIFICATION NO.	
N00014-11-1-0625	AVVARD/IVIODI	FICATION	P00005	
27. SPECIAL INSTRUCTIONS:				
28. DELEGATIONS: The administration duties liste	- 6: d - db da arta 🚳 :			
will make their full text available. Please direct ques	http:/	//www.onr.navy.mi	1/Contracts-Grants/Regional-	Contacts.aspx
Full Delegation				
29. TERMS AND CONDITIONS: The following term	ns and conditions are incomprated	herein by reference wi	th the same force and effect as if they we	re given in full text.
Upon request the awarding office contact named in	block 22 will make their full text a	vailable, or they can be	found as described below.	·
DOCUMENT The following documents may be for	nund at:			
http://www.onr.navy.mil/Contracts	-Grants/submit-proposa	1/grants-propos	al/grants-terms-conditions	.aspx
ONR Basic Research Grant - Octobe	er 2010			
Standard Terms and Conditions for Standard Terms and Conditions for	· Research Grants - Jun	ne 2011 (Core)	mcv Specific)	
UAAC UACC Acceptance C November	. Research Granca - rec	uddiy svir (ngc	and, openation	
UAWA UAWA Award A				
30. OPTIONS OPTION NO.	AMOUNT		PERIOD	
(1)				
(2)				
(3) (4)	•	•		
	mitted to the indicated addressees	, in the indicated quanti	ties, within 90 days following the expiration	on or termination of
the project. Final Technical Reports must be sub- Block 12a of the SF298 as follows: "Approved for I	RF298. Report Documentation Pag	e, accompanying mem.	Unless otherwise stated in the award/mo	idification, complete
ADDRESSEE	REPORT TYPE		<u> </u>	COPIES
See block #21	Final Repo	rt is not requ	iired	0
See Diock #21	Interim Re	search Perfort	mance Report (As Require	d) 1
	with SF298			
See block #23a	Report of	Inventions and	1 Subcontracts - DD 882	1
See Diook #23a	Final Repo	rt is not requ	iired	0
·	Interim Re	search Perform	mance Report (As Require Status Report - SF425 -	1
·		Line Item 11	boucub troposts of the	•
Defense Technical Information		rt is not requ	ired	0
8725 John J Kingman Road Ste	0944 Interim Re	search Perform	mance Report (As Require	ď) l
Fort Belvoir, VA 22060-6218	with SF298			
<u> </u>]
See block #26a	Report of	Inventions and	1 Subcontracts - DD 882	1
	i			
Naval Research Laboratory	Final Repo	rt is not req	uired	0
ATTN: CODE 5596			mance Report (As Require	ed) 1
4555 Overlook Avenue SW Washington, DC 20375-5320	with SF298	1		•
Washington, be 20375-3320				
32. FOR THE RECIPIENT		C.126	ED STATES OF AMERICA	1. 1
828. SIGNATURE OF PERSON AUTHORIZED T	O SIGN	33a. SIGNATURE (OF AWARDING OFFICER	
N/A - SIGNATURE NOT REQUIR	ED ON THIS AWARD			
	4			
82b, NAME AND TITLE OF SIGNER	326 DATE SIGNED	P2/60	TLE OF AWARD OFFICER	33c, DATE SIGNED 26-NOV-13
		Ellen Simon	TOT I	120 200 20

	١
	ł
	ł
	1
	1
	ł
_	l
≶	1
7	1
Ž	
<u> </u>	ł
. 1	I
DATA SHEET	I
Ш	I
Ш	Ì
I	ļ
SHEE	l
مهر	ł
\succeq	ŀ
4	Ì
ゔ	1
	1
O	1
NTING DAT/	
·	ł
5	ł
⇆	ı
≺	ı
Ų	ı
O	ı
O	
⋖	
i	
₹	
六	-
$\underline{\mathbf{c}}$	
Z	
≤	
Z	
FINANCIAL ACCOUNTING D	
_	

		NAVY INTERNAL	USE ONLY REF DOC/ACRN	PR#14PR01933-00 FRC:34AC			NTRACT REVIEWED		
***************************************			AMOUNT (CRITICAL)	\$50,000.00 PR#14	\$50,000.00	\$50,000,00	6. COMPTROLLER ONR CONTRACT REVIEWED		
	4.1		COST CODE PDIJ MCC & SUF	000 Q	PAGE TOTAL	GRAND TOTAL			
4, PR NUMBER	14 PKU1933-00	- K	PROJ	00000					
4, PR	7	-	=	2D 000000			: VD SIGNATURE		
RITICAL	005	1	SA AAA (CRITICAL)	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			COMPTROLLER APPROVAL: FOR FISCAL DATA AND SIGNATURE		
3. MOD (CRITICAL)	500003	E E	Æ.	333 333			COMPTI	DATE	
2. SPIIN (CRITICAL)		Ö.	88	410 410					
	5		(CRITICAL) (CRITICAL)	1741319					ysion 1.1
1. CONTRACT NUMBER (CRITICAL)	N00014-11-1-0625	CLINSLIN A.	ACRN (CRITICAL)	9			PREPARED/AUTORIZED BY:	DATE:	ONR AWARD FORM (10/99) - version 1.1

Dana Anta

4. PR. NUMBER 14 PR. 01933-00	USE ONLY REF DOCACRN				t reviewed
33~00	AMOUNT (CRITICAL)		\$.00	\$.00	for COMPTROLLER, ONR CONTRACT REVIEWED
2. SPIIN (CRITICAL) 3. MOD (CRITICAL) PO 0 0 5	ACCOUNTING CITATION	This page is intentionally blank	PAGE TOTAL	GRAND TOTAL	COMPTROLLER APPROVAL: FOR FISCAL DATA AND SIGNATURE BY DATE:
£ 4 ⊢	ACRN RITICAL)				PREPARED/AUTHORIZED BY: DATE:

AWARD NO.	SPECIAL REQUIREMENTS	MODIFICATION NO.
N00014-11-1-0625		P00005
Tl	nis page is intentionally	blank
-		
,		

•			
·			



3a ISSUED BY:
Office of Naval Research

						North Randolph ngton, VA 22203		
	76.70	MODIF	ICA	ATION				
		1. INSTRUMENT TYPE:			3b. CFC	PA:		
AL RESEAR		Grant .				.300 IS NUMBER:		
		10 USC 2358, 1	31 USC	6304	30.00	IO NOMBEN.		
4. AWARD NO.: N00014-11-1-0625		5. MODIFICATION NO.: P00004	1	DIFICATION TYPE: crement	7. PR N 131	O.: PR04771-02		
8. ACTIVITY/AGENCY PROPOSAL NO).:	9. RECIPIENT PROPOS	AL NO.:	10. PROPOSAL DA	TE: 1	1. ACTIVITY TYPE:	12. PROGRAM TY	PE:
N/A 13. ISSUED TO 13b. CAGE:	13c FDL	N/A /EFT NUMBER:	14. REM	04-APR-11	(IF DIFFI	ERENT FROM BLOCK	lrs	
13a ADDRESS: 5B333 UNIVERSITY OF KENTUCK OFFICE OF GRANTS AND 201 KINKEAD HALL LEXINGTON, KY 40506-0	CONTRAC	ARCH FOUNDATION	San	ne as block #	13			
			_					
13d BUSINESS OFFICE CONTACT: Deborah Davis			-					
	ALL ADDR	RESS:	┨					
(859) 257-9420 ddavi	s@email.u	cy.edu	1					
15. RESEARCH TITLE AND/OR DESC Large Scale Topside E	RIPTION C lectron	OF PROJECT AND/OR PR magnetic Modelin	oposal t g	ITLE:				
16. FUNDING A	CTIVITY/A	GENCY SHARE RE	CIPIENT SE	HARE	To	OTAL 17. CURRENT	FUNDING PERIOD	·····
	-	CERTOT CIPALL	5.1 (2.11 6.				N/A THROUGH	
PREVIOUSLY OBLIGATED:			1				THROUGH N/A	
OBLIGATED BY THIS ACTION:							-,	
TOTAL OBLIGATED ON AWARD:			1			18. PERIOD O	F PERFORMANCE	
FUTURE FUNDING:		·····	_				16-MAY-11 THROUGH	
		·	•	· ·			15-MAY-14	
GRANT TOTAL:			1	\$1,05	0,615	.00		
19. ACCOUNTING AND APPROPRIAT See attached Financial	ION DATA Accou	: nting Data Sheet	t (s)			. <u> </u>		
20a, PRINCIPAL INVESTIGATOR/REC	IPIENT		21. TECH	NICAL REPRESENT	ATIVE		21b. CODE:	
TECHNICAL REPRESENTATIVE:			21a. NAN	^{ME:} Steven J.	Russe	11	ONR 331	
ROBERT J. ADAMS			875 1	DRESS: ce of Naval R North Randolp ngton, VA 222	h Str	eet		
20b. TELEPHONE NUMBER: 20c. E	MAIL ADDI	RESS:	21d. TEL	EPHONE NUMBER:		21e. EMAIL AI	DDRESS:	
	mseuky.ed	u	(703) 696-4714		STEVEN.J.RUS	SELL@NAVY.MIL	
22. AWARDING OFFICE CONTACT 22a. NAME: Diane Gales		22b. CODE:	23a, ADN	MINISTRATIVE OFFIC	E:		23b, CODE: N62880	
22c ADDRESS: Office of Naval Resear 875 North Randolph Str Arlington, VA 22203-19	eet	ONR BD025	230 CHIC PHON	REG. OFFICE (SOUTH DEARBOR AGO, IL 60604 E: (312) 886- (312) 353-20	RN, RC 1-1595 -5423	OM 380	No2000	
(1031 020 2323	e.galejona		25h COS	3E.	26a B4	TENT OFFICE:	26b. CODE:	
24, SUBMIT PAYMENT REQUEST TO	25	a. PAYING OFFICE:	25b. COL	DE: 0251	Zoa. PA	ALNI OFFICE:	N00014	
Same as block #23a		DFAS COLUMB-NAVY COLUMBUS, OH 432	ACQ H		ATTN: One I 875 N	e of Naval Res ONR BDCC Liberty Center North Randolph ngton, VA 22203	Street, Suite 1	.425

AWARD NO.	AWARD/MODIFICATION	MODIFICATION NO.	
N00014-11-1-0625 27. SPECIAL INSTRUCTIONS:			
			}
			(Control of the state)
28. DELEGATIONS: The administration duties lists will make their full text available. Please direct que	ed below have been delegated to the administrative of stions to the contacts @:	fice (block 23a). Upon request the awarding	j office contact (block 22)
	http://www.onr.navy	.mil/contracts-Grants/Regional	1-concacts aspx
Pull Delegation			
	ms and conditions are incorporated herein by reference	e with the same force and effect as if they y	were given in full text.
Upon request the awarding office contact named in	n block 22 will make their full text available, or they ca	n be found as described below.	
DOCUMENT The following documents may be for	ound at:		
http://www.onr.navy.mil/Contracts	s-Grants/submit-proposal/grants-pro	posal/grants-terms-condition	s.aspx
ONR Basic Research Grant - Octobe	er 2010	1	
Standard Terms and Conditions for	r Research Grants - June 2011 (Core r Research Grants - February 2011 (Agency Specific)	
UNAC UACC Acceptance C November HAWA HAWA Award A			
UAWA UAWA AWAIG A			
			İ
30, OPTIONS OPTION NO.	AMOUNT	PERIOD	
(1)			
(2)			
(3) (4)			
	mitted to the indicated addressees, in the indicated of SF298, Report Documentation Page, accompanying the	uantities, within 90 days following the expira	ition or termination of modification, complete
Block 12a of the SF298 as follows: "Approved for	Public Release; distribution is Unlimited".		
ADDRESSEE	REPORT TYPE		COPIES
See block #21	Final Report is not r	equired ormance Report (As Requir	ed) 0
E	with SF298	ormanoc Ropozo (III III que	
	Penort of Inventions	and Subcontracts - DD 882	1
See block #23a	Final Report is not r	equired	0
	Interim Research Peri	ormance Report (As Requir al Status Report - SF425	red) 1 - 1
	Including Line Item 1		
Defense Technical Information	n Center Final Report is not r	equired	red) l
8725 John J Kingman Road Ste Fort Belvoir, VA 22060-6218	0944 Interim Research Perf	ormance Report (As Requir	(eq) 1
FORE BEIVOIT, VA 22000-0210			1
	Perent of Inventions	and Subcontracts - DD 882	2 1
See block #26a	Report of inventions		
1			
Naval Research Laboratory	Final Report is not r	equired	0
ATTN: CODE 5596 4555 Overlook Avenue SW	Interim Research Perf	formance Report (As Requir	red) 1
Washington, DC 20375-5320			
	22 EOD THE I	INITED STATES OF AMERICA	
32. FOR THE RECIPIENT 32a. SIGNATURE OF PERSON AUTHORIZED 3		RE OF AWARDING OFFICER	
N/A - SIGNATURE NOT REQUIR			
DUM - GROWN O'RESTON PRESIDE			
326, NAME AND TITLE OF SIGNER	NOTANI ENGLISH STORE OF STORE	D TITLE OF AWARD OFFICER	33c. DATE SIGNED 03-OCT-13
	Ellen Si	MOHOLL	100-001-10

ONR AWARD FORM (10/99) - version 1.1

>-	
>	٠
1	
ラ	
 -	
. '	
<u> </u>	
щ	
Ш	
エ	
ഗ	
-	
➣	
5	
ጟ	:
Ц	
'n	
¥	
-	
<u></u>	
z	
╗	•
\asymp	٠
쏫	
ب	
Q	٠
⋖	
į	
7	
_	٠
O	
Z	•
FINANCIAL ACCOUNTING DATA SHEET - NAVY	
ラ	
-	
Ш.,	٠

			NAVY INTERNAL USE ONLY	REF DOC/ACRN	PR#13PR04771-02 FRC:3RCZ			to COMPTROLLER, ONR CONTRACT REVIEWED	
					00	00.	939.00	YROLLER, (
			AMOUNT	(CRITICAL)	\$29,939,00		\$29,938	for COM	
		7.		- 5	8C20	 ≹	TAL		
			3DE	\vdash	0_	PAGE TOTAL	GRAND TOTAL	į	
	-02		COST CODE	{ I	000				
UMBER	13PR04771-02		У	PROJ	00000				
4. PR NUMBER	13PR		J. PAA		00000				
		:	<u>.</u>		2 D			GNATURE	
			H. AAA	(CRITICAL)	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		· (v)Occode	FOR FISCAL DATA AND SIGNATURE BY	
3. MOD (CRITICAL)	P00004		 გე		0		021100	OR FISC.	
3. MOD (P00		F. RFM		ମ ମ ମ		Torio		DATE
			E. PARM		전 전				
CAL)		:	180 0		4 C				
2 SPIIN (CRITICAL)			C. SUBHEAD	(CRITICAL)	WIAS				
CAL)	5		RIATION		0. H C H C H C H C H C H C H C H C H C H				
1. CONTRACT NUMBER (CRITICAL)	N00014-11-1-0625	6. LINE OF ACCOUNTING	A. ACRN	(CRITICAL)	Eu C		ODEDA OF CALL I TO CALL DE CALL	UI ONZEU BT.	
1. CONTRACT	N00014-		CLIN/SLIN				47000	TREPARELIM	DATE

Damp A of 5

	8. NAVY INTERNAL USE CALLY (CRITICAL) REF DOCIACRIN		\$.00	S. DO S. DO	I'M CACHELLY COME CONT.
2. SPHN (ORITICAL) 3. MOD (CRITICAL) 4. PR. NUMBER 1.3 PR 04771-02		This page is intentionally blank	PAGE TOTAL	COMPTROLLER APPROVAL: FOR FISCAL DATA AND SIGNATURE	
1. CONTRACT NUMBER (CRITICAL) N00014-11-1-0625	CLINSUIN ACRN (CRITICAL)			PREPAREDIAUTHORIZED BY:	

AWARD NO. N00014-11-1-0625	SPECIAL REQUIREMENTS	MODIFICATION NO. P00004	
		•	
Th	nis page is intentionally	blank	
		•	
			1
			į
•			
			į

		·
	,	



3a. ISSUED BY:
Office of Naval Research
230 SOUTH DEARBORN

GN IT	\R		MODII	FICA	TION	ROO CH	OM 380 ICAGO, I	L 60604-1	595	:
	AI		1. INSTRUMENT TYP				FDA:			
SIA	RESEAR	3	Grant			E	2.300			:
			2. AUTHORITY:			3c. D	UNS NUMB	ER:		
4. AWARD NO.:			10 USC 2358, 5. MODIFICATION NO		6304 DIFICATION TYPE	DE: 7 00	t NO.:			
4. AVVARD NO.: N00014-11-1	-0625		A00001	- 1	min Mod		APR0193	3-02		
8, ACTIVITY/AGENC	Y PROPOSA	L NO.:	9. RECIPIENT PROPO	SAL NO.:	10. PROPOSA		11. ACTIV	TY TYPE:	12. PROGR	AM TYPE:
N/A	laar aans	40- 5	N/A DI/EFT NUMBER:	Taa mm	04-APR-1			DOM BLOCK	lrs	
13, ISSUED TO 13a. ADDRESS:	135, CAGE: 5B333	1	OAF		ie as bloc		rreneixi r	NOW BLOCK	13;.	
UNIVERSITY OFFICE OF G 201 KINKEAD LEXINGTON,	OF KENTE RANTS AN HALL	ID CONTR	EARCH FOUNDATION ACTS	N .						
13d. BUSINESS OFF	ICE CONTAC	ET:	<u> </u>							
Deborah Da	avis									:
13e. TELEPHONE NU (859) 257-94	#20	f, EMAJL AD! davis@email								
15. RESEARCH TITL Large Scale	E AND/OR D Topside	ESCRIPTION Electro	NOF PROJECT AND/OR F omagnetic Modeli	PROPOSAL T ing	ITLE:					;
16. FUNDING		ACTIVITY	AGENCY SHARE F	RECIPIENT S	HARE	<u></u>	TOTAL 1	7. CURRENT	FUNDING PE	REOD
				•	•			N	/A THROUGH	
PREVIOUSLY OBLIG	WIED:							N	/A	
OBLIGATED BY THIS	S ACTION:							-	, •••	
TOTAL OBLIGATED	ON AWARD:			I			1		PERFORMA	
FUTURE FUNDING:		-			· · · · · ·				16-MAY-1 THROUGH	1.
TOTORE TORONO.			<u> </u>						31-DEC-1	4
GRANT TOTAL:				ı	\$1	,050,61	15.00			
	I Financ	ial Acco	TA: ounting Data She							
ZOa. PRINCIPAL INV		RECIPIENT			INICAL REPRES				21b. CODE:	n =
TECHNICAL REPRES				21c. ADI	ME: Steven	J. Rus	aeīī		ONR 3	31
				Offi 875	ce of Nava North Rand	dolph St	treet			
20b, TELEPHONE NU	JMBER: 120	c. EMAIL AC	DRESS:	21d. TEL	EPHONE NUME	BER:	2	1e. EMAIL AD	DRESS:	
(859) 25717	l l	jadams@uky.		(703	696-471	4		STEVEN.J.KUS	SELL@NAVY.MII	
22. AWARDING OFF			22b. CODE;	23a. AD	MINISTRATIVE (OFFICE:			23b. CODE:	
22a, NAME: John	A. Chia	ppe	ONR BD245						N6288	30
22c ADDRESS: Office of Na 230 SOUTH DE ROOM 380 CHICAGO, IL	ARBORN 60604-19	595		230 CHIC PHON	REG. OFFIC SOUTH DEAL AGO, IL 60 E: (312) 0 (312) 353	RBORN, 0604-15 886-542	ROOM 38 95			
22d. TELEPHONE NU		Pe. EMAIL AC JOHN CHIAPPI								
(312) 886-19 24, SUBMIT PAYMEN	,,,		25a. PAYING OFFICE:	25b. CO	DE:	26a.	PATENT OF	FICE:	26b. CODE:	
Same as bloc				HC	0251				N000	14
Dame as Dioc	A. 1143C		DFAS CLEVELAND CLEVELAND, OH			ATT One 875	N: ONR I Liberty North I	Center	Street, Su	ite 1425

AWARD NO.	AWARD/MODIF	CATION	MODIFICATION NO. A00001	
N00014-11-1-0625 27. SPECIAL INSTRUCTIONS:			1,000,01	
See "Special Requirements" 1	Attachment			
_				
28. DELEGATIONS: The administration duties li	ated helew have been delegated to the	administrative office (block 23a). Upon request the awarding of	fice contact (block 22)
28. DELEGATIONS: The administration duries in will make their full text available. Please direct qu	uestions to the contacts @:	/www.onr.navv.mi	1/Contracts-Grants/Regional-	Contacts.aspx
	ncep.17	,		
Full Delegation				į
				<u></u>
29. TERMS AND CONDITIONS: The following to	erms and conditions are incorporated	herein by reference wit	h the same force and effect as if they wer	e given in full text.
Upon request the awarding office contact named DOCUMENT	J in block 22 will make their full text av	aliable, or they can be	tourd as described below.	
The following documents may be http://www.onr.navy.mil/Contrac	found at:	l/grante_propos	al/grants-terms-conditions.	aspx
		r/drancs-brobos	HI/GILLIOS ECELIES CONSTITUTIONS	
ONR Basic Research Grant - Octo Standard Terms and Conditions f	ber 2010	2011 (Core)		
Standard Terms and Conditions I Standard Terms and Conditions f	or Research Grants - Feb:	ruary 2011 (Age	ncy Specific)	
UAAC UACC Acceptance C November	•			
UAWA UAWA Award A]
				·
30, OPTIONS OPTION NO.	AMOUNT		PERIOD	
(1)				
(2) (3)				
(A)				
31. REPORTS: The following reports must be s the project. Final Technical Reports must have	ubmitted to the indicated addressees,	in the indicated quanti	ties, within 90 days following the expiratio Unless otherwise stated in the award/mo	n or termination of dification, complete
the project. Final Lechnical Reports must have Block 12a of the SF298 as follows: "Approved fi	or Public Release; distribution is Unlim	ilted".		
ADDRESSEE	REPORT TYPE			COPIES
See block #21	Final Repor	t is not requ	iired	0
	Interim Res	search Perform	mance Report (As Require	d) [1
	WILH SF255			
See block #23a			1 Subcontracts - DD 882	1
	Final Report	ct is not requ	nance Report (As Require	d) 0
	Final Fede	cal Financial	Status Report - SF425 -	1
	Including I	Line Item 11		
Defense Technical Informati	on Center Final Repor	t is not requ	iired	0
8725 John J Kingman Road St	e 0944 Interim Res	search Perfort	mance Report (As Require	d) 1
Fort Belvoir, VA 22060-6218	with SF298			
	1			
See block #26a	Report of 1	Inventions and	1 Subcontracts - DD 882	1
Naval Research Laboratory	Final Repo	rt is not req	nired	ed) 1
ATTN: CODE 5596	Interim Re		mance Report (As Require	··· -
4555 Overlook Avenue SW Washington, DC 20375-5320	WICH SIZSO			1
32 FOR THE RECIPIENT			ED STATES OF AMERICA DE AWARDING OFFICER	
32a. GIGNATURE OF PERSON AUTHORIZED		DAM DISTRACTION		
N/A - SIGNATURE NOT REQU	IRED ON THIS AWARD			
			TLE OF AWARD OFFICER	33c. DATE SIGNED
325, NAME AND TITLE OF SIGNER	32c. DATE SIGNED	John A. Ch		28-APR-14
	Anna Santa de Caractería d			

	MAVY INTERNAL USE ONLY REF DOC/ACRN				for COMPTROLLER, ONR CONTRACT REVIEWED	
	AMOUNT (CRITICAL)		\$.00	\$.00	for COMPTROLL	
FINANCIAL ACCOUNTING DATA SHEET - NAVY AL) 3. MOD (GRITICAL) 4. PR NUMBER 14 PR 01933-02	G. H. AAA IT PAA PROJ RC COST CODE 7. (CRITICAL) WCC & SUF	page is intentionally blank	PAGE TOTAL	GRAND TOTAL	COMPTROLLER APPROVAL: FOR PISCAL DATA AND SIGNATURE BY	
2. SPIIN (CRITIC	CLINISLIN A. B. C. CLINISLIN A. APPROPRIATION SUBHEAD OBJ PARM RFM (CRITICAL) (CRITICAL) (CRITICAL)	E-I			PREPARED/AUTORIZED BY: COM	OATE: DATE

ONR AWARD FORM (10/99) - varsion 1.1

Dana 1 of 5

	NAVY INTERNAL USE ONLY REF DOC/ACRN				ONTRACT REVIEWED
	AMOUNT (CRITICAL)		\$.00	\$.00	for COMPTROLLER, ONR CONTRACT REVIEWED
2. SPIIN (CRITICAL) 3. MOD (CRITICAL) 4. PR NUMBER 14 PRO 1.933 - 0.2	ACCOUNTING CITATION ACCOUNTING CITATION (CF	This page is intentionally blank	PAGE TOTAL	GRAND TOTAL	
1. CONTRACT NUMBER (CRITICAL) NOOO14-11-1-0625	6. ACRN 7. (CRITICAL)		The state of the s		PREPARED/AUTHORIZED BY: DATE:

The purpose of this modification is to extend the period of performance of this award to 31 Dependent 2014 at no additional cost to the Government. No other changers are to be made to this award through this modification.	AWARD NO.	SPECIAL REQUIREMENTS	MODIFICATION NO.
The purpose of this modification is to extend the period of performance of this award to 31 December 2014 at no additional cost to the Government. No		SPECIAL REQUIREMENTS	1 1
	The purpose of this modification is to extend	the period of performance of this award to 31 December 201 through this modification.	4 at no additional cost to the Government. No
	•		
			1
			;



3a ISSUED BY: Office of Naval Research 875 North Randolph Street

ANT			MODIF	ICA	ATION	Arli	ngton, VA 22203	-1995
	RESEARCH		1. INSTRUMENT TYPE: Grant				DA: . 300 IS NUMBER:	
4. AWARD NO.:			2. AUTHORITY: 10 USC 2358, 3 5. MODIFICATION NO.:			7. PR N		
N00014-11-1			P00006	In	crement	141	PR01933-01	
B. ACTIVITY/AGENCY N/A	PROPOSAL NO	D.:	9. RECIPIENT PROPOSA N/A	L NO.:	10. PROPOSAL DAT	re: 1º	1. ACTIVITY TYPE:	12. PROGRAM TYPE:
	13b. CAGE: 5B333	13c. EDI 1150.	ÆFT NUMBER: AF		NTTANCE ADDRESS (ne as block #1		ERENT FROM BLOCK	13):
UNIVERSITY (OFFICE OF GI 201 KINKEAD LEXINGTON, I	RANTS AND HALL	CONTRA	ARCH FOUNDATION CTS					
13d. BUSINESS OFFI				-				
13e. TELEPHONE NU (859) 257-94	IMBER: 13f. El ddavi	MAIL ADDF s@email.u						
15. RESEARCH TITLI Large Scale	EAND/OR DESC Topside E	RIPTION (lectro	OF PROJECT AND/OR PRO magnetic Modeling	POSAL T	iitlė:			
16. FUNDING	Ā	CTIVITY/A	GENCY SHARE REC	IPIENT S	HARE	т (OTAL 17. CURRENT	FUNDING PERIOD
PREVIOUSLY OBLIG	ATED:			j			N	TAROUGH
OBLIGATED BY THIS	ACTION:			ı			<u> </u>	I/A
TOTAL OBLIGATED	ON AWARD:		······	Ī			18, PERIOD O	PERFORMANCE
FUTURE FUNDING:				1		,,		16-MAY-11 THROUGH
GRANT TOTAL:				i	\$1,05	0,615	.00	15-MAY-14
19. ACCOUNTING AN See attached	ND APPROPRIAT L Financia	TION DATA L ACCOU	nting Data Sheet	: (s)		· · · · ·		
20a. PRINCIPAL INV		CIPIENT		21. TEC	HNICAL REPRESENT	ATIVE		21b, CODE:
TECHNICAL REPRES				21c. AD	ME: Steven J. DRESS:	Russe	<u> </u>	ONR 331
				875	ce of Naval B North Randolp ngton, VA 222	h Str	reet	
20b. TELEPHONE NU	JMBER; 20c. E	MAIL ADD	RESS:	21d. TE	LEPHONE NUMBER:		21e. EMAIL AD	ODRESS:
(859) 25717		msœuky.ed			3) 696-4714	· F.	STEVEN.J.RUS	SELLONAVY.MIL
22. AWARDING OFF 22a. NAME: Diane			22b. CODE: ONR BD255	23a. AD	MINISTRATIVE OFFIC	,EI		23b. CODE: N62880
22c ADDRESS: Office of Na 875 North Ra Arlington, V	ndolph Str	reet		230 CHIC PHON	REG. OFFICE (SOUTH DEARBON CAGO, IL 60604 NE: (312) 886	RN, RO 1-1595 -5423	OOM 380	
22d. TELEPHONE N	JMBER: 22e. E	MAIL ADD	RESS:	FAX:	: (312) 353-20	194		
(703) 696-25	93 DIAM	E.GALESON	AVY.MIL 5a, PAYING OFFICE:	25b. CO	iDE:	26a. PA	ATENT OFFICE:	26b. CODE:
24. SUBMIT PAYMEN Same as bloc				Н.	00251]		N00014
Dame as Dioc	A TRACK		DFAS CLEVELAND N. CLEVELAND, OH 44			ATTN One : 875	ce of Naval Res : ONR BDCC Liberty Center North Randolph ngton, VA 22203	Street, Suite 1425

AWARD NO.	AWARD/MODIF	ICATION	MODIFICATION NO.	
N00014-11-1-0625 27. SPECIAL INSTRUCTIONS:			1 200006	
27. SPECIAL INSTITUTIONS.				
			23 4 22 3 15	effer protect (block 22)
28. DELEGATIONS: The administration duties listed will make their full text available. Please direct ques	tions to the contacts 🙉 .		Diock 23a). Open request the awarding. 1/Contracts-Grants/Regional	
Full Delegation				
				1
			the the same force and affect on it thousand	ore given in full text
29. TERMS AND CONDITIONS: The following term Upon request the awarding office contact named in	is and conditions are incorporated in block 22 will make their full text av	ailable, or they can be	found as described below.	ste given itt ion text
DOCUMENT				
The following documents may be for http://www.onr.navy.mil/Contracts	und at: -Grants/submit-proposal	/grants-propos	al/grants-terms-conditions	.aspx
ONR Basic Research Grant - October				
Standard Terms and Conditions for	Research Grants - June	2011 (Core)		
Standard Terms and Conditions for UAAC UACC Acceptance C November	Research Grants - Febr	ruary 2011 (Age	ncy Specific)	
UANA UACC Acceptance C November				
30 OPTIONS OPTION NO.	AMOUNT		PERIOD	
(1)	7.010-0111			
(2)				
(3)				ł
(4) 31, REPORTS: The following reports must be subm	itted to the indicated addressees.	in the indicated quanti	ties, within 90 days following the expirati	on or termination of
the project. Final Technical Reports must have a SI Block 12a of the SF298 as follows: "Approved for P	F298, Report Documentation Page	, accompanying them.	Unless otherwise stated in the award/m	odification, complete
ADDRESSEE	REPORT TYPE			COPIES
See block #21	Final Repor	t is not requ	uired	0 .
See block #21	Interim Res	earch Perform	ance Report (As Require	ed) 1
	with SF298			
				[
See block #23a	Report of I	nventions and	Subcontracts - DD 882	
See Diock #23a	Final Repor	t is not requ	iired	. 0
	Interim Res	earch Perform	ance Report (As Require Status Report - SF425 -	ed) 1 - 1
		ine Item 11	Beatus Report 51425	*
Defense Technical Information		t is not requ	uired ·	0
8725 John J Kingman Road Ste		earch Perform	ance Report (As Require	a) 1
Fort Belvoir, VA 22060-6218	with SF298			
See block #26a	Report of I	nventions and	Subcontracts - DD 882	1
·				
Naval Research Laboratory	Final Repor	t is not requ	iired	0
ATTN: CODE 5596	Interim Res	earch Perform	mance Report (As Require	ed) 1
4555 Overlook Avenue SW Washington, DC 20375-5320	with SF298			
industry south and and				
32 FOR THE RECIPIENT		31	ED STATES OF AMERICA	
32a. SIGNATURE OF PERSON AUTHORIZED TO	ISIGN	33a. SIGNATURE C	OF AWARDING OFFICER	
N/A - SIGNATURE NOT REQUIRE	ED ON THIS AWARD			
325, NAME AND TITLE OF SIGNER	32c. DATE SIGNED	33b. NAME AND TI Ellen Simon	TLE OF AWARD OFFICER	33c. DATE SIGNED 19-MAR-14
	P. Commission of the Commissio	ETTEN PINOL	1721	1

ONR AWARD FORM (10/99) - version 1.1

	ł
	1
	1
× × ×	
~	
◁	
ブ	
_	
•	
_	
<u></u>	
ш	
111	٠
_	
ᆂ	
'n	
~,	
⋖	
ᅩ	
_	
∢	
へ	
اسط	
'n	
U	
7	
 	
·~	
<u> </u>	
\supset	
$\overline{}$	
Ų	
()	
\sim	
Ų	
⋖	
⋖	
$\overline{}$	
()	i
\simeq	
4	
Ø	۰
\rightarrow	;
_	
Ŧ.	
FINANCIAL ACCOUNTING DATA SHEET	

			NAVY IN LERNAL USE ONLY	REF DOCACRN	PR#14PRO1933-01 FRC:34AC			for COMPTROLLER, ONR CONTRACT REVIEWED
			AMOUNT	(CRITICAL)	\$124,679.00	\$124,679.00	\$124,679.00	for COMPTROLLE
		7.	COST CODE		0000 4 ACCO	PAGE TOTAL	GRAND TOTAL	
85	14PR01933-01			PROJ	00000			
4. PR NUMBER	14PRC		J. PAA		0000000			URE
			=		8		:	SIGNAT
7			H, AAA	(CRITICAL)	068342			COMPTROLLER APPROVAL: FOR FISCAL DATA AND SIGNATURE BY DATE:
CRITICA	P00006		ი. გგ		0			TROLLER FOR FIS BY
3. MOD (CRITICAL)	P00		P. P.E.W.		89.3 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0			COMP
			E. PARM		뒲.			
(CAL)			0 0 0 0 0	5	910			
2 SPIIN (CRITICAL)	•		C. SUBHEAD	(CRITICAL)	WIAE			
SAL)	TC.	COUNTING	B. APPROPRIATION	(CRITICAL)	1741319			
1. CONTRACT NUMBER (CRITICAL)	11-1-062	6. LINE OF ACC	CLINSLIN A. B. APROPRIA	(CRITICAL)	AG.			PREPAREDIAUTORIZED BY: DATE:
1. CONTRACT	N00014-		CLINSLIN					PREPARED/A

Dane A of G

	NAVY INTERNAL USE ONLY REF DOCIACRN				. REVIEWED	
	II.	*	00.8	\$.00	FOR COMPTROLLER, ONR CONTRACT REVIEWED	
	8. AMOLINT (CRITICAL)	· ¬¬	JTAL)TAL	for COM	
4. PR NUMBER 14 PR 01933-01		intentionally blank	PAGE TOTAL	GRAND TOTAL	COMPTROLLER APPROVAL. FOR FISCAL DATA AND SIGNATURE BY DATE:	
3. MOD (CRITICAL) PO0006	ACCOUNTING CITATION	vo •⊷1				
2 SPBN (CRITICAL)	AC	This page	the property of the state of th			
RACT NUMBER (C	S. CLINSLIN 6. ACRN 7. (CRITICAL)				Preparediauthorized BY: Date:	

AWARD NO. N00014-11-1-0625	SPECIAL REQUIREMEN	NTS	IODIFICATION NO. P00006	
				 :
T	his page is intentiona	ally bl	ank	
				:
			•	

	•	



3a, ISSUED BY: Office of Naval Research

	\R		MODIF	FICA			h Randolph n, VA 22201		
REMARKAN	RESEAR		1. INSTRUMENT TYPE Grant 2. AUTHORITY:	:		3b. CFDA: 12.300 3c. DUNS NU			
4. AWARD NO.:			10 USC 2358, 5. MODIFICATION NO.		6304 DIFICATION TYPE:	7. PR NO.:			T
N00014-11-	1-0625		P00008	1	lmin Mod	l .	330-01		
8. ACTIVITY/AGENO N/A	Y PROPOSAI	L NO.:	9. RECIPIENT PROPOS	SAL NO.:	10. PROPOSAL DA 04-APR-11	TE: 11. ACT	IVITY TYPE:	12. PROGR	AM TYPE:
13. ISSUED TO 13a. ADDRESS:	13b. CAGE:	13c. E	DI/EFT NUMBER:		MITTANCE ADDRESS		T FROM BLOCK		
	FRANTS AND HALL	D CONTRA	EARCH FOUNDATION		me as block #	13			
13d. BUSINESS OF	ICE CONTAC	:T:							
Deborah D									
13e. TELEPHONE N (859) 257-9		f. EMAIL ADE	DRESS: uky.edu						
15. RESEARCH TIT	E AND/OR DI		OF PROJECT AND/OR PRomagnetic Modelin		HTLE:	······································			 ,
16. FUNDING		ACTIVITY/	AGENCY SHARE RE	CIPIENT S	HARE	TOTAL	17. CURRENT	FUNDING PER	₹IOD
PREVIOUSLY OBLIC	GATED:			i			1	N/A THROUGH	
OBLIGATED BY THI			-				1	n/A	
							40 DEDICE O		ioe .
TOTAL OBLIGATED FUTURE FUNDING:			•	i		· ****	16. PERIOS O	F PERFORMAL 16-MAY-1: THROUGH	1
GRANT TOTAL:				I	\$69	8,413.00		31-DEC-1	t
19. ACCOUNTING A See attacher 20a. PRINCIPAL INV	d Financi	ial Acco	A: unting Data Shee		HNICAL REPRESENT	'ATIVE		21b. CODE:	
ZOB, PRINCIPAL INV TECHNICAL REPRE		RECIPIENT		21a. NA	ME: Steven J.			ONR 3	31
ROBERT J. AL)AMS			21c. AD Offi 875	DRESS: .ce of Naval I North Randoly ngton, VA 222	Research ph Street		, , , , , , , , , , , , , , , , , , , ,	
205, TELEPHONE N	UMBER: 200	c. EMAIL ADI	DRESS:	21d. TEI	LEPHONE NUMBER:		21e. EMAIL AL	DDRESS:	- , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
(859) 25717	 	adams@uky.e			3) 696-4714		STEVEN.J.RUS	SELL@NAVY.MIL	
22. AWARDING OFF 22a. NAME: John			22b. CODE: ONR BD245	23a. ADI	MINISTRATIVE OFFIC	CE:		23b. CODE: N6288	10
22c. ADDRESS: Office of Na 230 SOUTH DE ROOM 380 CHICAGO, IL 22d. TELEPHONE N (312) 886-19	val Rese ARBORN 60604-15 UMBER: 220	arch	DRESS:	230 CHIC	REG. OFFICE (SOUTH DEARBOY CAGO, IL 6060- IE: (312) 886- (312) 353-20	RN, ROOM 3 4-1595 -5423			
4. SUBMIT PAYME		то: 2	5a. PAYING OFFICE:	25b. CO		26a. PATENT	OFFICE:	26b. CODE:	4
Same as bloc	:k #23a		DFAS COLUMB. NOF COLUMBUS, OH 432	TH ENT		ATTN: ONR One Liber 875 North	Naval Reso BDCC ty Center Randolph 9	Street, Su	

AWARD NO.	AWARD/MODIFI	CATION	MODIFICATION NO. P00008	
N00014-11-1-0625 1 27. SPECIAL INSTRUCTIONS:			10000	
See "Special Requirements" Att	tachment			
26. DELEGATIONS: The administration duties listed	I helpy have been delegated to the a	dministrative office (bl	nck 23a). Upon request the awarding	office contact (block 22)
will make their full text available. Please direct quest	lines to the contacts (8):		Contracts-Grants/Regional	
Full Delegation				
29, TERMS AND CONDITIONS: The following term: Upon request the awarding office contact named in DOCUMENT	block 22 will make their full text availa	rein by reference with table, or they can be for	the same force and effect as if they would as described below.	ere given in full text.
The following documents may be for http://www.onr.navy.mil/Contracts-	nnd at: -Grants/submit-proposal/g	grants-proposal	/grants-terms-conditions	.aspx
ONR Basic Research Grant - October Standard Terms and Conditions for Standard Terms and Conditions for UACC Acceptance C UAWA Award A	Research Grants - June :	2011 (Core) ary 2011 (Agend	cy Specific)	
	AMOUNT		BERIOD	'
30, OPTIONS OPTION NO. (1) (2) (3) (4)	AMOUNT		PERIOD	:
31. REPORTS: The following reports must be subm the project. Final Technical Reports must have a SF Block 12a of the SF298 as follows: "Approved for Pi	298, Report Documentation Page, ac	ccompanying them. Ur	s, within 90 days following the expiratintess otherwise stated in the award/m	on or termination of odlification, complete
ADDRESSEE	REPORT TYPE			COPIES
See block #21	Final Report Interim Resea with SF298		red nce Report (As Require	ed) 1
See block #23a			Subcontracts - DD 882	1
		arch Performa: L Financial S	red nce Report (As Require tatus Report - SF425 -	
Defense Technical Information 8725 John J Kingman Road Ste (Fort Belvoir, VA 22060-6218		is not requirerch Performan	red nce Report (As Require	0 1
See block #26a	Report of Inv	rentions and s	Subcontracts - DD 882	1
Naval Research Laboratory ATTN: CODE 5596 4555 Overlook Avenue SW Washington, DC 20375-5320	Final Report Interim Resea with SF298	is not requi arch Performa	red nce Report (As Require	0 1
32. FOR THE RECIPIENT	Critical and an application of the application of the application of the application of the application of the		STATES OF AMERICA	
32a. SIGNATURE OF PERSON AUTHORIZED TO N/A - SIGNATURE NOT REQUIRE		337SIGNATURE OF	AWARDING OFFICER	
320, NAME AND TITLE OF SIGNER		335. NAME AND TITLE Diane Gales	OF AWARD OFFICER	33c. DATE SIGNED 30-OCT-14

	NAVY INTERNAL. USE ONLY REF DOC/AGRN				for COMPTROLLER, ONR CONTRACT REVIEWED
	AMOUNT (CRUTICAL)		\$.00	\$.00	for COMPTROLLER
ESPIN (CRITICAL) 2. SPIN (CRITICAL) 1. SPIN (CRITICAL)	C. C. D. E. F. G. H. I. J. K. COST CODE SUBHEAD OBJ PARM RFM SA AAA IT PAA PROJ PROJ PROJ (CRITICAL) CIA POLI MCC & SUF	This page is intentionally blank	PAGE TOTAL	GRAND TOTAL COMPTROLLER APPROVAL: FOR FISCAI DATA AND SIGNATURE	DATE
	CLINSLIN A B B COUNTING ACRN APPROPRIATION (CRITICAL) (CRITICAL)			PREPARED/AUTORIZED BY:	DATE

Dona Anth

	NAVY INTERNAL USE ONLY REF DOCACRN				CI KEVIEWED	
			0	o Maria	FOR COMPINOLLER, ONR CONTRACT REVIEWED	
	AMOUNT (CRITICAL)		\$.00	00.\$	TO COMP I KULLE	
2. SPIIN (CRITICAL) 3. MOD (CRITICAL) 4. PR NUMBER P00008 15 PR 01330-01	ACCOUNTING CITATION	This page is intentionally blank	PAGE TOTAL	COMPTROLLER APPROVAL FOR FISCAL DATA AND SIGNATURE	BATE:	and the same of th
(CRITICAL)	6. ACRN 7. (CRITICAL)			PREPAREDIAUTHORIZED BY;		ONE ANAMON COM ANNON Longitud 1
1, N000	S. CLIN/SLIN			PREPAR	DATE:	

AWARD NO.	SPECIAL	REQUIREMENTS	MODIFICATION NO.	
N00014-11-1-0625			P00008	
The purpose of this modification is to correct	administrative error rev	vise Block 16 FUNDING to read as sh	own under grant N00014-11-1-0625	
All other terms and conditions of this grant re	emain unchanged.			į

	•				
		•			
			•		

AWARD/CONTRA	CT	I. THIS CONTRACT		NCEP.		(A11843)C-C9(U)	PAGE C	F PACES
CONTRACT (PROC. (NET. IDENT.)	RG.	SEE BLOOK 20.C.	TR	4. 04PR088	REGUESTIC	NATHCHARE REQU	日神経の形式	NO.
NGCO14-D4-G-0074 HALED BY OFFICE OF NAVAL RESEARCH ONE 254 BRIAN K. MERPHY (I E-mail brien, mulphy@phr.nevy. EALLSTON YOUVER ONE BYO NORTH QUINGY STREET ARLENGYON, VA 22217-5665	('03)696-0030	NOODIA	ADMIN DCM Moor 1000	Pittaburg	rei Bulidir enue	ng, Room 1612		
MANE AND ADDRESS OF CONTRA	CTOR (No. most	with country, State and Zip	Code)		4.	ELIVERY See SECTION	N F of Borns	-
SIMPLY SPARSE TECHN	IOLOGIES					OF ORIGIN X I	MATERIAL PROPERTY OF THE PROPE	ı
59 DELROSE DRIVE MOROANTOWN, WV 26	508-0948				W.A.	ASSOCIATION PROPERTY	PAYMEN	7
		orig				MAT INVOICES	(stem	
	'. ·	FACILITY CODE			(4 pap others THE	ine univer the execution) TO DURESE VN No :	500 Se	allen G
ODE TOYTS	0008	MODEL4		MENT WILL M	MACH BY	COOR		
Program Officer, Luise Co Code: 834, Office of Neva Beliston Tower One, BCT 800 North Quincy Street Arlington, Virginia 22217-	Research 1, Rm 528 5560		ENTITLE PO BOX COLUME	MENT OP 182265 BUS, OH 43	ERATION 3215-228	8		
AUTHORITY FOR UNING OTHER T				CALINTING AND		ation data Ing Data (Fad) Bhe	ST/B.	
164, (*18140. 1	41V.0.5.22 10.10/6/164/80			ANTITY	180. UNT			MOUNT
				1#3.10	DTAL AMOUN	IT OF CONTRACT	P Spri San	gan & of
		18. TABLE OF	CONTEN	e e				
7) SEC.	E BOHEOULE	PAGE(S)		<u>e l</u>	ART II ~ CO	MERITION MERICE CLAUSES	1	PAGE(8)
A TROLICITATION/CONTR	ACT FORM	1 1	2 1		CT CLAUSE			7-15
C DESCRIPTION OF SERVICE	S AND PRICES	COATS 2	PAS	LIST OF	ATTACHIA	TO EXHIBITO AND C	THERATTA	CH. (5
C DESCRIPTIONSPECS	KING	2	1	PARTIY-	PASIN	ATIONS AND INSTR	UCTIONS	16
PACIAGINA NE MA PACIACIÓN AND AS POLIVERES CATALA PACIAL CONTRACTORS NEGO CONTRACTORS NEGO	SPIANCE		* *	OTHER !	TATEMENT	SERTIFICATIONS SOF OFFERORS		15
CONTRACT ADMINIST	RATION DATA	3.6	<u> </u>	INS TES	CONDA A	HE NOTICES TO OF HIS POR AWARD	FERORE	
Y H SPECIAL CONTRACT	3/11/40 (NO	OFFICER WILL COM	ETE ITEM	17 CR 18 A	APPUCA	BL.E. Johnson to Mign Evin da		
agreem to Laybini and distress of feet attraction identified allows and are all placed her six. The fights are disting published to send governing by the help the administrator, it are mid (to send) passed passed before, it are administrator in	e or partiere all the personal content of light of the parties of a description of content of the parties of the description of	a destriment dust Strift; or man for Paul correditoritori, to Strip constituti ditali du (3) Shin propristivoristati, (3) hatiaria, correlizationis, muti	inner	r gristiersk it of Befod aberen s outrant which s	harges are en out on any ear onetain of the	acting the actificate of a charities suit election, in deposit is suit election, in deposit of animalia. The following discussionistic from measurements. It	Conget, Histor Hersty straept Japany consta (a) The Chaven	Augusta Sangar Sangar Sangar Sangar Sangar
IDE HAME AND TITLE OF BIONER (Type	or print() /		1	OF CONTRAC	•			
Dr. Francis X.	CAMBI	ⁿ 5	1	R. Brian	-	•		
الـك	t Pro	prietur		Contracti		cer		
imply Sperse Tech	20,000	Monch 19 2004	EV WI VIII	607.7		50 C. 10	MAR	19 2
PROADLE EDITION UNUESALE	CACA. A	25-	107			PAROARO	FORM 20 (NEV A LOT

ju "	~	AWARD/CONTRACT			CONTRACT DPAS (15 C			DER	•	RATING DO-C9(U)	- 1	PAGE OF PAGES
2.		CT (PROC. INST. IDENT.) NO. 4-04-C-0074	1 T. / I		FFECTIVE DA		,	4. 04PR03		TON/PURCHASE	REQUEST	
5.	OFFICE ONR 254 E-mail bi BALLSTI 800 NOF		CODE 96-0030	N00014			DCM I Moorb 1000 I	Pittsburg lead Fed Liberty A	leral Build	ing, Room 1	•	S3911A
7.	NAME AN SIMPL' 59 DEL	B ADDRESS OF CONTRACTOR Y SPARSE TECHNOLO ROSE DRIVE ANTOWN, WV 26508-4	OGIES	ot, city, country,	State and ZIP	Code)				SUBMIT INVOICE	X DES	TINATION PAYMENT
									othe	opies uniess rwise specified) ⁻ ADDRESS	то 🕨	See Section G
CODE				FACILITY CO	DE				SHC	WNIN:		
11.	SHIP TO/	MARK FOR	CODE	N00014		12.	PAYN	IENT WILL	BE MADE BY		CODE	HQ0337
	Code 3 Ballstor 800 No	m Officer, Luise Couchr 34, Office of Naval Res n Tower One, BCT1, Ro rth Quincy Street on, Virginia 22217-5660	earch n 528			ENT PO I	ITLEN 30X 1	MENT OF 82266	S CENTE PERATIC 13218-22) NORTI	1
13.	AUTHORI	TY FOR USING OTHER THAN F	ULL AND C	PEN COMPET	THON	14.	ACCC	UNTING A	ND APPROP	RIATION DATA		
	☐ 10U.S	i.C.2304(c)()	41U.S.C. 2	53(C) ()		SEE A	TTACHE	ED FINANCI	AL ACCOUN	ITING DATA (FAD) SHEET(S	}
15A,	ITEM NO.	158. SU	PPLIES/SE	RVICES		15	C. QUA	NTITY	150. UN	T 15E UNIT	PRICE	15F. AMOUNT
								15G. T	OTAL AMOL	INT OF CONTRAC		See Section B of Schedule
				16. 7	TABLE OF	CON	TENTS					
(/)	SEC.				PAGE(S)	(1)	SEC			ESCRIPTION		PAGE(S)
		PART I – THE SCH	 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							ONTRACT CLAU	ISES	
		SOLICITATION/CONTRACT FO			1 1	-	1 1		ACT CLAUS		· .	7-15
-		SUPPLIES OR SERVICES ANI DESCRIPTION/SPECS.MORK			2	7	PART II			ITS, EXHIBITS A	AND OTHE	
7		PACKAGING AND MARKING	· · · · · · · · · · · · · · · · · · ·	.	2	ļ 	ļ		ATTACHM		METELIATI	ONS 15
7		INSPECTION AND ACCEPTAN	NCE		2	7	Ικ			TATIONS AND II S, CERTIFICATI		UNS 15
~		DELIVERIES OR PERFORMAN			2			OTHER	STATEMEN	TS OF OFFERO	R\$	ļ
7		CONTRACT ADMINISTRATION SPECIAL CONTRACT REQUIR		····	3-5 5-7	<u> </u>	L M	INSTRS.	, CONDS., A	AND NOTICES T ORS FOR AWAR	O OFFERO	DRS
	7.1			OFFICER W		FTFI		OR IR A	S APPLIC	ORS FOR AWAI	7D	
17.	quired to s agrees to l otherwise stated hen subject to the solicita specification are listed i	TRACTOR'S NEGOTIATED ign this document and return 2 co furnish and deliver all items or per identified above and on any continuing. The rights and obligations of a decident governed by the following document tion, if an, and (c) such previsions ons, as are attached or incorporationation.	O AGREE opies to issue form all the nuation she the parties cuments: (e.g., represented by referenced MENT (Contra sing office.) Con services set for lets for the cons to this contract a) this award/co tations, certifical	actor is re- ntractor rth or ideration shall be intract, (b) tions, and	18.	Solicital which a items line the consolicitate necessary	VARD (Coa tion Number dditions or a sted above a tract which o lon and you	ntractor is no incomment shanges are s shand on any co consists of the r offer, and (t	t required to sign to luding the addition set forth in full about intinuation streets, a following document this award/contri	is or change ve, is hereb This awan ents: (a) the	es made by you y accepted as to d consummates e Government's	
		TITLE OF SIGNER (Type or print)							TING OFFIC	ER		
19B. N.	AME OF CO	NTRACTOR	-	19C. DATE S	IGNED	20B. U	INITED	STATES OF	AMERICA		20C.	DATE SIGNED
BY _						BY	······					
NICKI TO	(Sig	nature of person authorized to sig	grs)	L		107		(Signatur	re of Contrac	ung Officer)	100 500	

SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS

ITEM NO.	SUPPLIES/SERVICES	ESTIMATED COST	FIXED FEE	TOTAL ESTIMATED COST & FIXED FEE
0001	The Contractor shall furnish the necessary personnel and facilities to conduct the research effort and provide reports and data as described in Section C.			\$564,968.00
000101	ACRN: AA			
	ESTIMATED CONTRACT ERATION:			\$564,968.00

SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

- 1. The research effort to be performed hereunder shall be subject to the requirements and standards contained in Exhibit A and the following paragraph(s).
- 2. The Contractor shall conduct the research effort under CLIN 0001 in accordance with Attachment Number 1, entitled "Statement of Work".

SECTION D - PACKAGING AND MARKING

Preservation, packaging, packing and marking of all deliverable contract line items shall conform to normal commercial packing standards to assure safe delivery at destination.

SECTION E - INSPECTION AND ACCEPTANCE

Inspection and acceptance of the final delivery under this contract will be accomplished by the Program Officer designated in Section F of this contract, who shall have thirty (30) days after contractual delivery for acceptance.

SECTION F - DELIVERIES OR PERFORMANCE

- 1. The research effort performed under CLIN 0001 shall be conducted from date of contract award through 31 March 2007.
- 2. Distribution, consignment and marking instructions for all contract line items shall be in accordance with Enclosure Number 1 of Exhibit A and the following:

Program Officer
Office of Naval Research
Ballston Tower One
800 North Quincy Street
Arlington, Virginia 22217-5660
Attn: Luise Couchman Code: 334

Ref: Contract N00014-04-C-0074

N00014-04-C-0074 2